MARATHA FORTS

(A Study of Forts with reference to the Royal
Period of Maratha History)

A Thesis submitted to the

UNIVERSITY OF POONA

For the degree of Doctor of Philosophy in
History

by

LIBRARY, POONA

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1971
POONA

ACKNOWLEDGEMENTS

I am deeply indebted to my Professor Dr.A.R.Kulkarni, Head of the Department of History, University of Poona, under whose guidance this thesis has been completed.

While I was pursuing my studies and researches in the preparation of this thesis, Prof. G.H.Khare, Bhārat Itihās Samshodhak Mandal, Poona; Dr. S.N. Rajguru, Dr. M.K. Dhavalikar, Deccan College, Poona; Shri S.A. Sali, Technical Assistant, Archaeological Survey of India, Dhulia, rendered valuable information for which I remain thankful to them.

I am also deeply grateful to the University Grants Commission, New Delhi, for its financial assistance and University of Poona for the travel grant which helped me in undertaking the survey of forts and the preparation of plans, etc. Shri V.D.Deshpande, my intimate friend, helped me in preparation of the drawings and in actual field-work. Shri S.P.Mote and Shri W.T.Jape rendered full cooperation in preparing maps and photographs. I owe my sincere thanks to them. My training as surveyo~~u~~r in the Archaeological Survey of India, South-Western Circle, Aurangabad, has helped me immensely in carrying out my research project.

I must express my sincere thanks to the authorities and the library-staff at the archaeological Survey of India, South-Western Circle, Aurangabad; Deccan College, Poona; Rajwade Samshodhan Mandir and Vāgdevatā Mandir, Dhulia, for providing with library facilities.

Shri M.[illegible].Kantak, Shri P.B.Deshpande and my wife Ms. Sushama Deshpande were much helpful to me during all the stages of my work. I am deeply gr~~e~~ateful to them. I also extend my sincere thanks to Principal M.Y.Vaidya, Arts and Commerce College, V.V.Sabha, Dhulia; P. Narayan Babu, Technical Assistant, Archaeological Survey of India, Aurangabad, Shri A.C.Payarikar, Shri G.D. Kasnis, Poona and many friends for their encouragement.

Poona — P.N.DESHPANDE

14-6-1971.

ABBREVIATIONS

BK = Ākāśabhairavakalpa

I = Ancient India -
Bulletin of the Archaeological Survey of India.

P = Ajñāpatra.

A S = Arthaśāstra

BDCRI = Bulletin of the Deccan College Research Institute.

CH I = Cambridge History of India

Chitnis = Śakakarte Shivaji Mahārāj hyānche Saptaprakarnā -
tmaka charitra.

ERS = English Records on Shivaji

F A = Fatuhate Ālamgiri

GKD = Gaḍ-Koṭ - Durg va Tyānchī Vāstu.

GPS = Gadādhar Pralhad Śakāvali

HA = Haft Anjuman

IA = Indian Antiqvary

J, I, H, = Journal of Indian History

JS = Jedhe Śakāvali

KS = Khatut - i - Shivaji.

MA = Marathe va Aurangzeb (Māsir-i-Ālamgiri)

Māsir = Māsir-i-Alamgiri (Tran-by Sarkar)

MM = Mogal Āṇi Marathe (Tarikh-i-Dilkasha)

MMS = Mogal-Maratha Sangharsha

MSY = Marāthyānche Swántantrya yuddha (Kháfikhān)

PUJ = Poona University Jornal

Rajvade = Marāthyānchyā Itihāsāchī Sādhane

RE = A Royal Edict on Principles of State Policy and Organisation (Ajñāpatra).

RJ = Rāyagadchī Jeevankathā

RV Rigveda

RYK = Rājyavyahārkośa

Sabhasad= Chhatrapatī Shivājirāje Yānchī Bakhar.

SCP = Shiva-Charitra-Pradīp

SCS = Shiva-Charitra-Sāhitya

SCVS = Shiva-Charitra-Vritta-Sangrah

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CHAPTER I

INTRODUCTION

History of the Marathas, particularly of the seventeenth century, is closely linked up with the forts in the Deccan. The foundation, the expansion, and the preservation of the Maratha Power - all these phases of Maratha history could be better understood, only if one knows the significance of forts in the history of this region. An attempt has, therefore, been made in the following pages to study the historical role of the forts taking in view their significance as strategic posts and their peculiar architectural features as weapons of warfare. No comprehensive work has so far been done in this subject. As a matter of fact the fort architecture itself has not been dealt with in detail so far. A number of scholars have done extensive work on rock-hewn architecture, as well as temple and other religious architecture of early and medieval periods. Although Muslims were the great fort-builders, the scholars of Muslim architecture paid little attention to their fort architecture. Even the authors like Percy Brown, an authority on Indian architecture, makes a brief reference to the fort architecture[1] in his monumental work.

The late Sidney Toy,[2] in his two works, viz. 1. The Strongholds of India and 2. The Fortified Cities of India has dealt sketchily with the architectural aspects of only some selected forts of the south and North. He selected three representative hill forts, namely, the Sinhgad, Shivner and Purandar for his study. But he has not described all the aspects of hill-fort architecture and also not covered such forts as the Rājgad, Rāyagad, Pratāpgad, etc. which possess the characteristic features of a hill-fort. As a matter of fact the hill-fort architecture was developed to a great extent and became a special science during the period of Shivaji.

In short, the Scholars have not paid much attention so far to the scientific aspect of the fort architecture. Earlier studies have simply focussed attention on the descriptions of the monuments on the forts, rather than the strategy of fort architecture. It is, therefore, necessary to study the fort architecture, the part played by them as capitals, as bulwark against alien assaults, how were they administered, etc.

The number of forts in the Deccan is large and hence in the present study, a few representative forts which are associated with major events in Maratha history have been selected.

The present work covers the period of Shivaji and his sons till the arrival of Shahu (1630 - 1707). The forts were then treated as important limbs of the country. Although the Bahāmanīs introduced several new elements in fort architecture, we find that this science was considerably developed even before the advent of the Muslims in India. The art of building forts in the form of citadels and city fortifications has been known since the pre-Harappan times. The earliest references to forts are tracable since Vedic age. Kautilya discusses the types of fort, the relation between the siege-equipment and the siege tactics in his treatise '*Arthaśāstra*'. The epics - the *Rāmāyaṇa* and the *Mahābhārata* as well as the *Manusmriti* have also mentioned forts and their significance to the state. These earlier references enable us to trace the antiquity of forts.

The period of Shivaji and his sons was a period of strenuous warfare activity. All the major military operations of this period are connected with forts. A number of sieges, some of which deserve special mention from the point of view of military history, took place during this period. The Marathas could overthrow the mighty Mughal forces besieging the forts because of their superior knowledge of the Deccan region, and their control over a chain of forts.

Shivaji paid much attention towards the administration of forts. Amatya's '*Ājñāpatra*' and several contemporary records enable us to present an account of the forts and their various aspects. In the chapter on fort administration, the precautions taken by Shivaji and his successors have been fully described.

How the forts were utilised and why Shivaji selected certain forts as his capitals or places of residence are some of the points for which information could be collected in bits from the contemporary and nearly contemporary sources.

Sources

The ~~S~~sources of Maratha history are scattered in various languages of which Persian, Marathi and English are imporant. For the present work, the Persian sources prove useful for discussing the sieges. Marathi sources are mostly useful for describing the fort administration. However, both Persian and Marathi sources furnish little information of fort architecture. Sanskrit sources like *'Ākāśbhairavakalpa'* are of some assistance in understanding the science of forts. English sources, particularly travellers' accounts, give substantial information in respect of some forts. An analysis of the sources used in this study would be of much significance here.

Sanskrit Sources

Akāśbhairauakalp - This work has been composed by a court-poet of Vijayanagar, probably in the 16th century. The manuscript of this work ends abruptly in the midst. All the seven copies of this work traced so far are incomplete. They are preserved at the Saraswati Mahāl Library of Tanjavur.[3] Of the 136 chapters of this work available so far, seven chapters (21 to 27 ~~respectively~~) deal with the matter of the construction of forts, their types and architectural features. This work enables us to form an idea about the forts constructed in the 16th and 17th centuries. We can also trace the influence of Islamic architecture on India in this work.

Shivabhārata - Anupurāṇa or Shivabhārata, written by Kavīndra Parmānanda, is an important Sanskrit work of Shivaji's period. The poem is an incomplete epic and written in imitation of the Raghuvamsha. It contains 31 complete cantos and nine verses. The narrative is only upto A.D.1661. An interesting account of Afzal's episode, Shaista Khan's expedition, Umberkhiṇd episode, has been described by Paramānand. Although laudatory, this work throws considerable light on the earlier activities of Shivaji. We get some information about the siege tactics used by Shivaji in capturing forts like that of Śirvaḷ.

Budhabhushaṇam - The authorship of this work is attributed to Sambhaji, the son of Shivaji. The chapter on Rājnīti of this work gives information regarding forts, their types, administration, etc. However, this work hardly discusses the architectural aspect of forts of medieval period. On the other hand, the account given in this work is strikingly identical with the information furnished by Manusmriti and other treatises.

Rājvyavahār Kośa - The work is composed by Raghunath Pandit Hanumante on the instructions from Shivaji. In the chapter 'Durgavarga'[4] we get the technical terms in respect of fort architecture and siege tactics, Persian as well as Sanskrit, which were generally in use during the period under discussion.

Rājārāmcharitam - This work is composed by Keshav Pandit who accompanied Rajaram to Jinji. It is farily accurate description of the route of Rajaram's journey from Rājgad to Jinji, when the former was occupied by the Mughals in 1689, and the King had to seek shelter at some other places. Rajaram wanted to be away from the constant Mughal menace and thus plan his military activities from a distance. On his way to Jinji he took resort at several forts. This description gives us an idea of the chain of forts, and their significance during the critical period.

Parnāla - Parvata - grahan - ākhyānam -

This work is composed by Jayaram Pindye. It gives a ~~narrative~~ description of the surprise of the fort Panhālā by Kondaji Farjand, a Maratha leader, in 1673. The information in this work is faithful and it enables us to learn the swift and quick siege tactics used by the Marathas.

Besides the above works, Samarānganasūtradhār, composed by Rājā Bhojadeva and Shivatatva - Ratnākar by Basavrāi have been consulted, as both the works belong to the medieval period and deal with the subject of forts and their types, etc.

Persian Records

Persian records supply valuable information of sieges of the medieval period. The Mughal Emperor Aurangzeb was involved in a number of military operations in the Deccan, and with the help of the contemporary or nearly contemporary sources, one can understand his war policy, the methods of attacks and the duration of sieges, etc.

Māsir - i - Ālamgiri - It is an official history of Aurangzeb's reign from 1658 to 1707. This history has been written by Sāqi Mustad Khan within three years ~~of~~ after Aurangzeb's death. Enough details are furnished of the sieges of hill forts like Rājgad, Rāyagad, Panhālā, Vishālgad, Sātārā, Paraḷi, Sinhgad, etc. On certain occassions, the author himself was present on the sopt and therefore the information furnished by him is more accurate and graphic.[5]

Nuskhā-i-Dilkashā - So far as some sieges are concerned, the history written by Bhimsen Burhanpuri, 'Nuskhā-i-Dilkashā' is an eye-witness account. He was the agent of Dalpatrao Bundela, the faithful official of Zulfikarkhan. He was present in the Emperor's Deccan camp for good length of time. He furnishes valuable information about sieges of forts, particularly of the most critical period of Maratha history, known as the Maratha War of Independence[6], (1689-1707).

Muntakhab-ul-lubāb - This work, written by Muhammad Hashim Khafi Khan gives good account of Tarabai, the dowagar queen of Rajaram. Khafi Khan has written this work 25 years after the death of Aurangzeb. So it cannot be compared with Māsir-i-Ālamgiri in point of accuracy. Although he gives dates and names, sometimes inaccurate, his account is important as he furnishes enough details of military activities of Aurangzeb.[7]

Fatuhat-i-Ālamgiri - Ishwardas Nagar, a Mughal officer, has written this work. He often used to accompany the Emperor Aurangzeb in his camp. He gives a sketchy information in respect of sieges of the forts during the War of Independence.[8]

Haft-Anjuman - It is a collection of Jai Singh's letters despatched to Emperor, when the former under-took the Deccan expedition. In these letters we get the first-rate information of Jai Singh's activities. These letters throw considerable light on the 'strict blockade system' used by Jai Singh to force Shivaji to yield to the Mughals. Further we learn from these documents how the Mughals conducted their military operations, how they used to raise the batteries, etc.[9]

Ālamgir-nāmah - This work, written by Mirza Muhammad Kasim, furnishes the faithful account of Aurangzeb's life. But his information regarding Shaista Khan's expedition, it seems, is not so accurate. We learn from his account how the Mughals adopted unsuitable siege-tactics in the Deccan.[10]

Khatūt-i-Shivāji - ~~A~~ It is a good collection of various letters written by Shivaji, Aurangzeb, prince Akbar, Jai Singh, Dilerkhan and others. In one of the letters of this Collection Shivaji writes to the Mughal officials how hill forts are superior to ground forts of Bidar and Kalyan. In the letter of Nāmadārkhān, the Mughal official of Shaista Khan, we get some information about Shaista Khan's Deccan expedition. In Zulfikarkhan's letters we get substantial material in respect of siege of Rāyagad in 1689.[11]

Marathi Sources -

A huge amount of material, both published and unpublished, is available for the study of Maratha history.

This material may be broadly grouped under two heads: Chronicles and Records. In this present study only published records have been consulted for describing the forts and activities associated with them.

1. Chronicles -

Sabhāsad Bakhar. The earliest life of Shivaji was written in the last decade of the 17th century by Krishnājī Anant Sabhāsad, at the instance of Rajaram under the title of 'Shiva Chhatrapatīche Charitra'. It was probably started in 1694 and completed in 1697. From the point of view of the present study, this work is valuable because here we get a list of forts captured, built and repaired by Shivaji. Further it gives the general idea of fort administration laid down by Shivaji. However, we do not get much information regarding the siege-operations of this period.

91 Qala~~d~~mi Bakhar - The first narrative of Shivaji's life in Marathi was composed by Waqnis, official chronicler of Shivaji, probably written before 1685. But the original work is lost and later on the account is recomposed in 91 Sections in 18th Century. This bakhar also refers to the administration of forts in general.

Chiṭnis Bakhar - The work written by Malhār Rāmrāo Chiṭnis is known as 'Chhatrapatiche Saptaprakaraṇātmak Charitra'. This bakhar belongs to a later period, written in 1810. But it serves as a good tool for tracing the missing links. Like the earlier chronicles, this also helps us to know the names of forts in Maharashtra and their administration.

Jedhe Śakāvali - The Jedhe Shakavali is a chronological account of incidents from 1618 to 1697 with which the members of this family were familiar. This work is useful in fixing the chronology of important incidents. Several dates given in this work have been corroborated by the original documents and Persian texts. The siege tactics used by the Marathas as well as by the Mughals have been indicated whenever necessary. It is supplemented by another chronology known as the Gadādhar Pralhād Shakāvali.[12]

Ajñāpatra - Rāmachandrapant Amātya, a trusted lieutenant of Rajaram, has written this treatise in Marathi on statecraft for the guidance of Prince Sambhaji of Kolhapur. One separate chapter of this work is devoted to the study of forts which points out the importance and the maintenance of forts. Amātya describes very minute details of fort administration. The hill-fort architecture was developed during the age of Shivaji. Amātya furnishes several features of that developed science. For the present study, this work is most useful. Although written after Shivaji's death, it describes conditions prevailing in Shivaji's times. Amātya was in the services of Shivaji and his successors. Therefore his account is considered faithful.

2. Marathi Records

Marāthyānchyā Itihāsānchī Sādhane

The valuable collection of old Marathi papers have been published by V.K. Rajwade in 22 volumes. The papers are of different characters - *Sanads*, Petitions, Judgements (*Niwāde*), etc. All these 22 volumes are first rate sources of the Marathi History. Several papers from volumes VIII, XIV, XV, XVI and other few throw considerable light on the fort administration of the times of Shivaji.

Shivacharitra Sāhitya Khand - The Bhārat Itihās Samshodhaka Mandala, Poona has so far collected numerous Marathi documents from various Maratha historical families, and has published most of them through the Journals. So far thirteen volumes in the series, 'Shiva Charitra Sāhitya' have been published. These are valuable documents for studying the various aspects of Shivaji's period.

Tārābāi-Kālin Kāgadpatre - The original documents of Tarabai's times have been edited and published by Dr. Pavar under the title 'Tārābāi - Kālin Kāgadpatre' in two volumes. The documents give the idea of the political situation at the times of Tarabai. Some letters throw light on Tarabai's policy towards the fort administration.

English Sources, Travel Accounts, etc. New Account of the East India -

The account given by J. Fryer, an European traveller of 17th century, is valuable from the point of view of learning political and social conditions of that period. Fryer's account is faithful and he speaks of Some of Shivaji's forts and their administration. The detailed description of fort Shivneri, the birth place of Shivaji, has been furnished by Fryer.

Travel accounts - 'Storia do Mogor' (~~travels~~ of Manucci)[13], Tavernier's Travels,[14] Bernier's Travels,[15] - all these accounts give us some information about the political situation in India during the Royal period. Rare references in respect of forts and their administration are found in these works.

English Records on Shivaji (1659 - 1682)

This work in two ~~volumes~~ parts is a good collection of several letters from factory records. Besides the copies of letters, the accounts given by English ambassadors have also been included in it. We get ~~the~~ faithful account of siege-operations conducted by Shivaji, particularly against the British. The description of Rāyagad fort, the capital of Shivaji, is given in detail by Henry Oxinden, the English ambassador.

a/

Field Work -

With a view to studying the various aspects of forts, actual visits and survey work were necessary. In the course of the study the writer visited several forts[16] and prepared sketches, took photographs, surveyed and prepared plans, and made eye copies of some of the monuments.

While surveying, it was found that several new elements in fort architecture were introduced in the 16th century. The forts constructed by Bahāmanī Kings in this period were undoubtedly impregnable. The triplicate moat, machicolations, crooked gateways, loopholed barrage, barbicans and the bastions consisting of num~~b~~eral lobes were the prominent elements introduced in the 16th century. This survey or field-work has been fully utilised in describing the architectural features of the forts in general.

So far as the hill forts are concerned, the writer has observed that certain new elements were introduced firstly by the Bahāmanīs and thereafter by the Marathas. The most striking element that this writer has observed is that the flanking bastions of the gateways replaced the barbicans. In the times of Shivaji, the importance of hill forts was recognised and so the *Māchis* (redoubts) acquired unique position. The other features like ascents, gorges, scarps, *Matās*, *Chilkhats*, etc. have been described fully in chapter IV. The rock-cut granaries and cisterns are the peculiar elements of ~~P~~pre-Islamic fort architecture. The underground approach to the fort is another striking element of ~~P~~pre-Islamic art. In the days of Shivaji, the excavated tunnels on wall-walks were used for battlement purposes. This is certainly a new element introduced by Shivaji.

In case of all types of forts vis. ground, hill and ~~M~~marine the loopholes are pierced in the battlements for musketry. So far as the marine forts are concerned, it was necessary to pierce loopholes at a very low angle with the battlements as the enemy could reach at foot of the fort by means of boats or *Tarafas*. Such loopholes were observed in the battlements of almost all the sea forts visited by the writer.

References (Notes)

1. See, Brown Percy - Indian Architecture (Islamic Period) P.68-69.

2. The late Sidney Toy was an eminent student of military architecture. Besides the books on forts of India, he has written two works on the history of fortifications in Europe, viz. (1) Castles (2) A History of Fortification.

3. The work has not been published so far. In his book 'Gaḍ-Koṭ-Durg Āṇi Tyānchī Vāstu', Shri V.S.Bendrey has published seven chapters of 'ākāsbhairavkalp' (21 to 27) ~~respectively)~~.

4. The work has been published in 'Śiva-Ćaritra-Pradīp' edited by Apte D.V.and Diwekar S.M.

5. The Persian text has been translated by Sir Jadunath Sarkar in English and has been published by the Royal Asiatic Society of Bengal. In Marathi, the text has been translated by Shri G.H. Khare so far as the period of Shivaji is concerned and is published in 'Śiva-Ćaritra-Vritta-~~Sav~~-Sangrah', - Fārasy-Vibhag, Khand 3. So far as the period of the war of independence is concerned, the text has been translated by Shri S.M. Pagadi in his 'Marathe Va Aurangzeb'. All these works have been consulted in the present thesis.

6. The original work is still unpublished. The text has been translated in Marathi by Shri S.M. Pagadi in his 'Mogal Āṇi Marathe'.

7. So far as the period of Shivaji is concerned, Shri G.H.Khare has translated the text in 'Śiva-Ćaritra-Vritta-Sav-Sangrah,' Farsy Vibhāg, Khand III. The rest of the work has been translated by Shri S.M. Pagadi in his Marāthyānche Swatantrya Yuddh'.

8. In Marathi, Shri S.M. Pagadi has translated this work in his 'Mogal-Marātha- Sangharsha'-(Pp 1-46).

9. Some of the letters from this work have been translated by J.Sarkar in his 'House of Shivaji'. The rest of the account has been translated in Marathi by Shri S.M.Pagadi in his 'Mogal-Marātha-Sanghavsha', (Pp. 84-103). Both the works have been consulted in the present work.

10. The original work has been translated by ~~Shri~~ Shri G.H.Khare in 'Śiva-Ćaritra-Vriṭṭa-Sangrah'-Fārsy Vibhāg Khaṇḍa III.

11. In Marathi, Shri S.M.Pagadi furnishes the translation of this work in his 'Mogal-Marātha-Sangharsha' (Pp.49-79)

12. The text has been published in 'Śiva-Ćaritra-pradīp' edited by D.V. Apte and S.M. Diwekar. The English translation of this work has been furnished by J.Sarkar in 'Shivaji Sovunir'. Both the works have been consulted here.
Souvenir

13. Translated by W. Ir~~v~~wine in four volumes.

14. Edited by Ball in two volumes.~~Edited~~.

15. Edited by Constable.

Chapter II

The Antiquity of forts

Forts in the Deccan became prominent in the medieval period, and played a significant role in determining the course of history. But this does not mean that fort as a weapon of warfare was unknown to the earlier people. It is true that the art of fort architecture was highly developed in the period under discussion, yet one can trace its roots in the earlier period of history.

According to the accounts of the chroniclers, Shivaji had built 111 forts in his kingdom.[1] But it must be rembered here that out of this long list of forts, very few of them were actually constructed by Shivaji. A large number of forts existed in the pre-Shivaji period. Further the Muslim rulers introduced several new elements in fort architecture of India. These new elements were borrowed by them from western Asia and Europe. But even before the advent of Muslims, the art of building the fortification was developed to a great extent. It would, therefore, be quite reasonable to trace in brief the history of the development of fort architecture in India.

Literary evidence.

In the Rigveda the work '*Pura*' occurs in the sense of fort.[2] The other words we find are '*Durga*'[3] and '*Dehi*'.[4] These forts were built of stones,[5] of bricks,[6] or even of copper (*Āyāsi*).[7] It is mentioned in Rigveda that Indra Killed the

Dasyus and destroyed their cities of Ayas (copper).[8] It seems that the forts of the Aryan period were considerably broad and wide. They were provided with ditches around them in order to obstruct entry into the fort.[9]

In later vedic literature the word 'Mahāpurā' is used in the sense of fort.[10] Here Mahāpurā means a big town with strong curtain walls around it. In Brahmaṇical literature we get several references to forts and their sieges.[10A]

The Epic Age witnessed considerable development in the art of fortification.[11] The forts have been frequently referred to in the Rāmāyaṇa and Mahābhārata. In the Rāmāyaṇa, while describing the city of Lankā, a detailed account of its fortification, gateways, bastions, etc. have been furnished.[12] In the Mahābhārata we get a number of references to forts. In Vanaparva of Mahābhārata, Lord Krishna speaks of the city, Dvārāvati which was well fortified on all sides according to the science of fortification.[13] The forts in the age of Mahābhārata were provided with strong walls, towers and gateways. Trenches around the city are also mentioned.[14]

At the time of Alexander's invasion several strongholds were scattered throughout the Northern India. The Greek writers like Qurtius, Diodorous and Arrian have left an interesting account of forts captured by Alexander.

Megasthenes, the ambassador of Seleucus Nicator to the court of Chandragupta Maurya, describes the fortification of Pātalīputra, 'Palibothra (Pātalīputra) was 80 stadia in length and 15 in width, that in shape of Parallelogram, that it was surrounded by a wooden wall with holes for discharging arrows and a ditch in front.'[15] Arrian states, 'Palibothra' (Pātaliputra) had 570 towers and 64 gates.'[16]

After the rise of the Mauryas, the military architecture had become a special science. The famous treatise on polity, the 'Arthśāstra', was composed during the Mauryan age in which Kautilya provides valuable information regarding the fort architecture.[17]

Kautilya classifies forts into four types viz. (1) 'Audaka' (Water) (2) 'Parvata' (Mountain) (3) 'Dhanavana' (Desert) (4) 'Vanadurg' (Forest fort).[18] He says that water and mountain forts are best for defending populous centres, whereas remaining two types of fort are habitations in wilderness.[19] Elsewhere Kautilya prefers mountain forts best for protection to the water forts.[20]

According to the Arthaśātra, the moat along with drawbridge should be provided all around the fort. The trenches should be two, separated from each other by six feet and should be filled with water.[21] Crocodiles should be allowed and lilies should be grown in the water of trenches.[22] The fort wall should be provided with towers, entrances and exits for ramparts. The pathways for vehicles should be constructed of stone slabs and cobbles.[23] Between the tower and the wall-walk, an 'Indra-Kośa' offering seats for three archers should be constructed.[24] Outside the ramparts obstructions can also be built in.[25]

From the details of fort architecture that we find in Arthaśāstra it is clear that the importance of forts was well recognised in the Mauryan age. Kautilya considers fort as one of the seven limbs (saptāngās) of the state.[26]

Besides Arthaśāstra, we are having other treatises which furnish information about forts and their architecture. All these treatises were composed right from Mauryan period to 15th Century A.D. A classification of forts by different authorities is given in the appendix to this chapter.

In South India too, forts played an important part in warfare since remote past. From Tamil literature and several south Indian inscriptions we can gather sufficient data in respect of forts and their architecture. We can get a graphic account of fortification of Madurāi belonging to early centuries to christain era in 'Madurāikkanei'.[27] The prominent features of Madurāi fortifications were the huge gates with towers over them, lofty walls and deep moat. The forts of Choḷa and Pāṇḍya period were great strongholds. The Choḷa King Kuloṭṭung III destroyed the fortifications of Madurāi whereas the Pāṇḍya King Māravarman Sundar destroyed the fortifications of Urandai.[28]

Archaeological evidence

In mountainous area the hills were generally used by the early inhabitants of India as the means of defence. The Pre-historic settlements at the foot of Maula 'Ali and Bhongir hills prove how the early denizens selected these sites for securing the protection in time of danger.[29]

In plain area the curtain walls were constructed since remote past to ensure protection. The towns of the Indus valley culture, as we know, had strong curtain walls around them. Remnants of fortifications with bastions and towers, found in excavations of Harappā, Mohenjo-Dāro and Kālī Bungan reveal that the towns had massive fortifications. But the peoples and cultures that succeeded the Harappan culture did not leave any material evidence of the fort architecture. We find again that the art of fortification was developed and nurtured by the Ganga valley since 5th century B.C.

The fortification of Rājgīr was provided with a gateway which was approached by earthen ramps both inside and outisde instead of a flight of steps.[30] The fort wall~~s~~ was about 15' to 18' thick and strengthened by semi-circular bastions.[31] Besides Rājgīr, we have other reliable evidences of fortifications of that period among which Kavsāmbī, Ujjain, Ahichchhatra, Vaishālī and Pātali-putra are more prominent. The walls of Ahichchhatra built of baked bricks, rise to a height of 40' to 50'. The wooden construction of pre-Gupta period found in excavation of Pātaliputra (Bulandibāgn) was identified as the wooden palisade mentioned by Megasthenes.[32] It may be noted here that most of the sites mentioned above were having the embankments meant to resist floods rather than the fortifications;[33] which as a device of military utility came into being by 5th century B.C.

The defences of Śiśupālgad were erected at the beginning of the second century B.C. In the earlier phase, it has been pointed out that the defences consisted of a massive clay-rampart over 25' high and 110' ~~ft.~~ wide at the base.[34] The clay was obtained from the esplanade by which the ditch around the fortification was formed. The last phase of the construction, it is observed, seems to have come to an end about the middle of the first century B.C.[35] The fort had eight large gate-ways and we find the provision of an ancillary passage[36] was made to one of them.

In the early centuries of the Christian era, Kushānās introduced several new elements in the hitherto existing science of forts. Begrām (Kāpiśī) near Kābul, Birkoṭ and Udegrām in Swāt, the Northern Kāfirkoṭ at the entrance of the Khurram valley, Śirī, east of Taxilā, and Śirsukh (the last city of the Taxilā) were the prominent forts of Kushāna period. Walls strengthened with heavy buttress, two rows of loopholes and huge bastions at irregular interval were the prominent features of the Kushāna forts.

The progress made in the fort architecture since the early times to the period of the Kushānās may be summarised as below :

1. Natural hills were used for securing the protection since pre-historic period.

2. During the period of Indus civilisation, the fortified cities like Mohenjo-Dāro and Harappā grew up. The massive ramparts and towers were provided to these fortifications. The mud bricks were generally used for the construction purposes.

3. At the time of Alexander's invasion, the natural forts like Aornos (now known as Pirsar and lies between the Swāt-Indus watershed and the valleys of Ghorband and Chakisar, in a high detached spur) were provided with difficult artificial ascent and with plenty of water.

4. During the age of Mauryan Empire, the special science of fort-architecture was introduced. Several features viz. moat alongwith draw bridge, spacious wall-walks, towers for archers, glacis, etc. were introduced.

5. In the Kushāna period, huge bastions and two rows of loop holes were added in the hitherto fort-architecture.

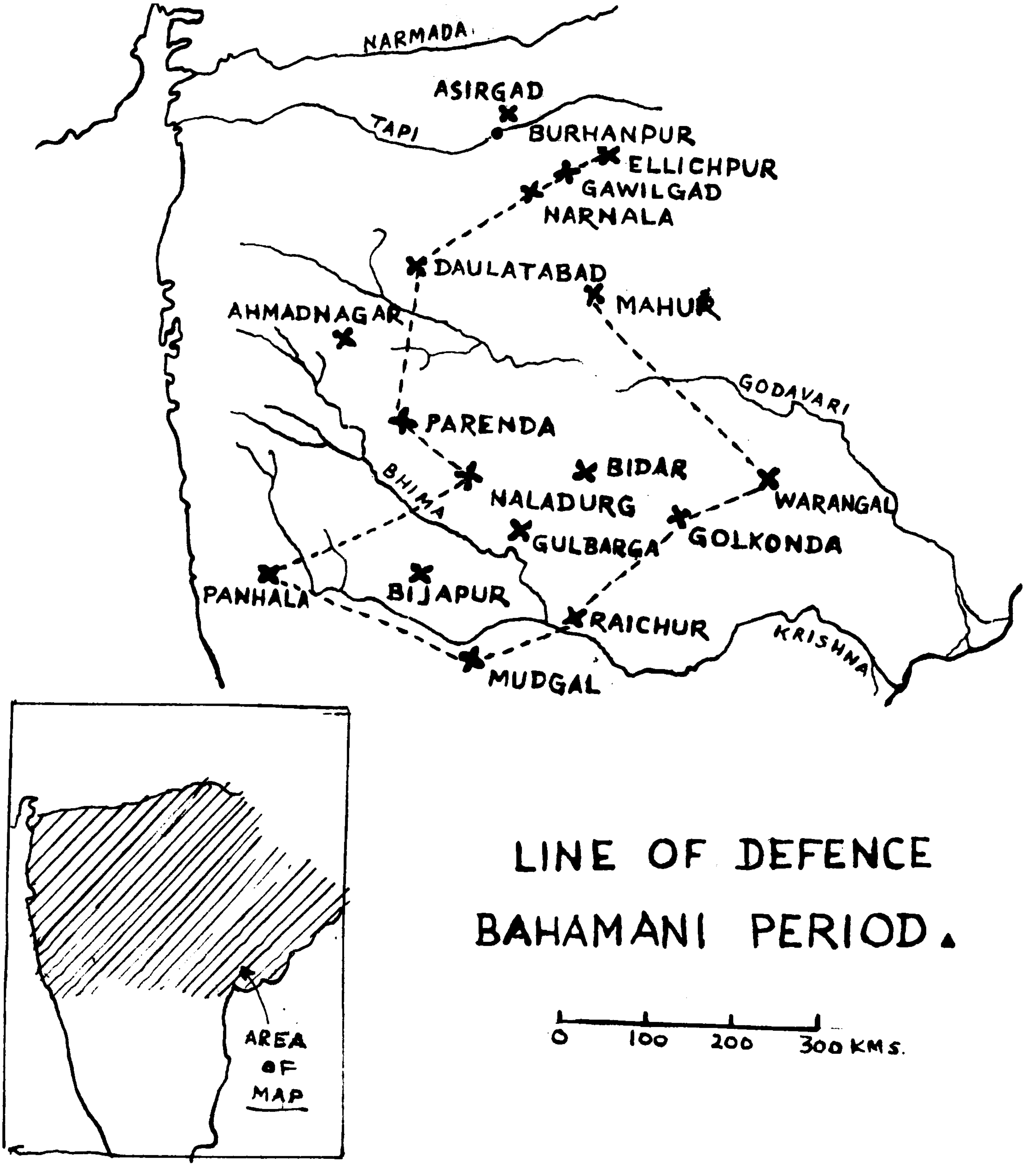
Forts in the Deccan -

It is very difficult to define the territory of the Deccan, for the boundaries of the provinces in India were always fluctuating. In the Royal period of the Maratha history, the territory known as the Deccan was mainly confined to the western edge of the Deccan plateau and Konkan. The geographical units of the Deccan in that period are described in chapter III of the present work. During the period of the Bahāmani kingdom the parts of Andhra, Karnataka and Maharashtra constituted the Deccan (Fig. 1). It is, therefore, necessary to trace the history of the development of fort architecture in the Deccan right from early ages to the period of the Bahāmanis in order to find out its impact on the forts of Maratha period.

No archaeological excavation throws any light on the early fortifications of the Deccan. From Tamil literature and South Indian inscriptions we can say that the art of building the fort was known to the people in south India. The earlier rulers of the Deccan were Śātvāhanās. We do not have any evidence to show that the Śātvāhanās built any fortification of their own.

The hill forts played a prominent role in the history of the Deccan since the Chālukyan times. The hill fort of Badāmī (dist. Bijapur) was the capital of the Chālukyās. This fort is defended by inaccessible cliffs on the north and south sides. Like Badāmī fort, the ground fort of Aihoḷe (dist. Bijapur) is the best speciman of military architecture of the 6th century A.D. The Śilāhārās of Kolhapur were also great fort builders. Forts like Panhāḷā, Kheḷṇā, Rāngaṇā, etc. are attributed to King Bhoja II. The hill forts like Badāmī and Panhāḷā were used as capitals by the Chālukyās and Śilāhārās respectively. It seems that by 6th century A.D. the hill fort architecture reached a high state of development. It may be noted here that the art of rock-hewn architecture reached its zenith by the same period. Several 'Chaityās' and 'Vihārās' were carved in the hills of the Deccan. The problem of

FIG. 1


NARMADA
TAPI
ASIRGAD
BURHANPUR
ELLICHPUR
GAWILGAD
NARNALA
DAULATABAD
MAHUR
AHMADNAGAR
GODAVARI
PARENDA
BIDAR
BHIMA
NALADURG
WARANGAL
GULBARGA
GOLKONDA
PANHALA
BIJAPUR
RAICHUR
KRISHNA
MUDGAL
AREA OF MAP
0
100
200
300 KMS.

LINE OF DEFENCE
BAHAMANI PERIOD.

storing water on the mountainous area was considerably solved by that time and numerous cisterns were excavated along with the caves. This developed science caused the rapid progress of hill fortifications. When the facilities of storing water and grains were introduced, the hill forts might have been considered as suitable places for establishing capitals. After the Chālukyās and Śilāhārās, the importance of hill forts was raised prominently by the Yādavās who held their capitals on hill forts Chandrādityapura first and later on Devgiri. About the Rāshṭra - Kūṭās, who preceded the Yādavās, no reliable evidence is with us to show the antiquity of fort in that period. But it may be noted that the value of the forts was well appreciated by the Rāshṭrakūṭās as the inscription of Amoghavarśa I, refers to the importance of forts.[33] So it may be concluded that the forts, particularly the hill forts, were treated as important elements of the state from the 6th to the 12th century A.D. throughout the Deccan.

Although the importance of hill-forts was raised, the forts constructed on plains maintained their significance. The fort of Warangal, which is attributed to the Kākatiyās, is the best speciman of ground forts of the early middle ages. This fort consists of three main defences. The outer rampart wall built of earth covers an extensive area. The southern portion was occupied by the city whereas the northern portion was covered by the citadel (Fig. 23). The plan of the fort is identical with the description given by Kautilya in his famous treatise 'Arthaśāstra.'[39] There are four gateways provided with mantlets to defend the entrance (Fig. 2a). One of the interesting features of the fort at Warangal is the ascent from within to the wall-walk. Here the flights of steps extend considerably at great length in order to facilitate the rapid climbing of the garrison, if the fort is besieged (Fig. 2d).

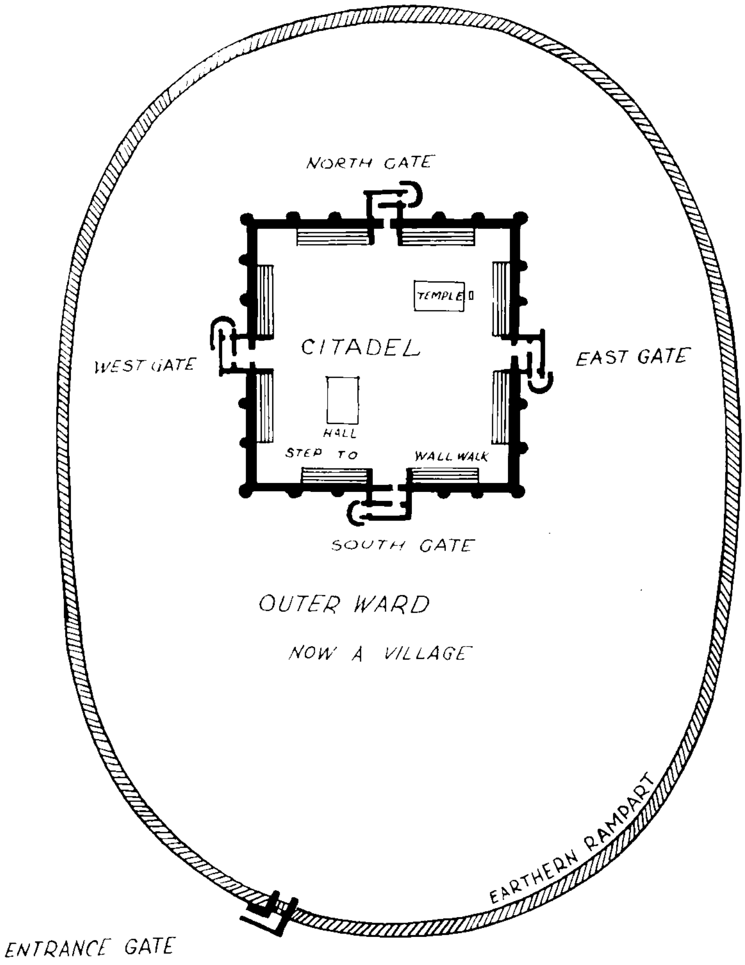
Besides Warangal, we have another example of the Rāichūr fort, a typical stronghold constructed by the Kākatiyās during the early middle ages. The original plan of the fort at Rāichūr is identical with the description furnished by Kauitilya. As the citadel of the fort stands on hill, the fort may be classified as land-cum-hill fort.[40]

From the preceding account, it is clear that considerable progress was made in building the ground and hill forts in the early middle ages. In later period the hill forts like Devgirī, Shivanerī, etc. acquired strategic importance during the times of the Yādavās. Besides hill forts, several references to 'Dhuḷī Koṭs' or ground forts tracable in Mahānubhāv literature[41] reveal that the ground forts were also treated as important in the Yādava period.

The progress made in the development of fort architecture since the Chālukyan times may be summarised as below:-

1. By 6th century A.D., the rock-hewn cave architecture had reached a high state of development and caused the rapid

Fig. 2


NORTH GATE
TEMPLE
CITADEL
WEST GATE
EAST GATE
HALL
STEP TO
WALL WALK
SOUTH GATE
OUTER WARD
NOW A VILLAGE
EARTHERN RAMPART
ENTRANCE GATE

WARANGAL. PLAN OF THE FORTRESS

a

b

progress of hill fort architecture. Consequently the new elements like rock-cut cisterns, granaries and underground approaches[42] were introduced.

2. In early middle ages the semi-circular mantlets, the spacious ascents from within were provided to the forts.

3. The guard-rooms, very close to the gateways, were provided in the forts like Panhālā and Devgirī.

4. The circular curtain walls were generally preferred to fortifications.[43]

5. For hill forts, only one gateway was preferred,[44] whereas for ground forts sometimes four gates were provided.[45]

From foregoing discussion, it may be concluded that the fort architecture developed to a great extent before the advent of the Muslims.

Forts in the Bahāmanī period -

So far as the Deccan was concerned, the new style of the fort architecture was introduced in the middle of the 14th century when Ala-ud-din Bahāmanī established his capital at Gulburga. As a matter of fact, the Muslim penetration in the Deccan began with the campaign of Ala-ud-din Khalji against the Yādava King Rāmadeorāo of Devgirī in 1296. However, the Muslim rule in the strict sense begun with the foundation of the Bahāmani dynasty in 1347. Hereafter civil as well as military architecture made rapid progress and several forts were built (many of them rebuilt) according to the developed science of fortification of Persia and Europe. It is because of this that we find some Persian and other foreign influences in the art of fortifications in the Deccan.

The fort of Gulburga was ~~a~~ the most remarkable production[46] of new military bulwarks. Double curtain walls, semi-circular huge bastions, gateways with barbicans, battlements of considerable width, the large merlons, machicolations, draw bridges, were the chief elements of military architecture of Gulburga fort. Here the maximum care was taken to forbid an entrance to the enemy. For closing the East gate, provision of heavy timber bar was made. This bar was only three inches above the ground and therefore could serve as a stumbling block in case the door was broken.[47]

When the Bahāmanī dynasty flourished, its rule was threatened, particularly by the Hindu Kings of Vijayanagar. For consolidating, their position, the kings of Vijayanagar strengthened their forts on the basis of Bahāmanī fort architecture. The forts of Madurā, Tanjāvar, and Badāmī were chief among them.

To safegurard their territory from the powerful armies of the Mughals and Vijayanagar, the Bahāmanīs formed a defensive chain of forts from north to south-west. In this chain we find the forts like Ellichpur, Gāvilgad, Narnālā, Māhūr on the north, Daulatābād, Pareṇḍā, Naḷadurg and Panhāḷā on the West, Warangal and Golkoṇḍā on the east, whereas Mudgal and Rāichūr on the south-west (Fig. 1). The system of forming the chain of forts for safeguard of the territory under rule was introduced in the first place by the Bahāmanīs.

We shall see later on how Shivaji formed the three chains of forts by which the Marathas not only founded but successfully defended their 'Swarāj' against the terrific wave of Aurangzeb's expedition.

Gulburga remained the capital of the Bahāmanis until 1429, when Bidar supplanted Gulburga as capital. Consequently the strong_hold of Bidar was constructed by Ahmad Shah I in 1426-31.[48] In the fifteenth century, forts of Sholapur and Ahmadnagar were constructed with provision of new elements of fort architecture born after the introduction of gun powder.

Introduction of gun Powder and artillery -

By the end of the fourteenth century, the use of gun powder became widespread. The new fire-spitting machines were introduced and thereby the revolutionary change was made in the hitherto common modes of warfare as well as defensive architecture. But it seems that the fortifications existing before the invention of gun powder were being continually adjusted to the defensive requirments. For we know that the forts like Daulatābād, Rāichūr, Madurā, Tanjāvar, Warangal, etc. were well adjusted after making certain additions and alterations here and there in order to bring them to the defensive requirements which arose after the introduction of gun powder. The gun-loops were adopted from earlier arrow-loops.

Although there is evidence to show the use of artillery in 1498 when the Portuguese fleet raided India, we find that the artillery was used to a great extent by Babar in the first battle of Panipat in 1526.[49] Henceforth the gun powder played an important part in the sieges and defence of fortifications. The battlements consisting of merlons and embrasures were adopted by musketry and cannon (Fig 32). Sometimes embrasures were filled in and the defence was adjusted through the loop-holes of merlon (Fig. 32). After the introduction of gun powder the importance of embrasure which was useful for the archers was reduced. Consequently the width of embrasures was gradually reduced (Fig. 32). In the new fortifications constructed after the introduction of gun powder and heavy artillery, the embrasures lost their significance and remained merely as narrow rectangular holes (Fig.32). At Ahmadnagar fort, we find that the battlement crestings at certain places are found with loopholes for barrage. Here the small loopholes are provided for gunners to effect barrage. No provision is found here for sighting (Fig. 32).

Introduction of new methods of engineering.

Before the advent of Muslims, mortar was scarely used. The Bahāmanī rulers used mortar and concrete to a great extent while constructing their civil, religious and military buildings. The true arch assembled in the scientific method was made popular by the Muslims. Further it may be noted that the Muslims were great tank-builders. For storing water several reservoirs and tanks were constructed.

Later on, Malik Ambar introduced the system of earthern pipe lines on a large scale for providing water to the area of considerable extent.

New and revised elements of fort architecture.

We have already seen that the Bahāmanīs introduced several new elements like barbicans, machicolations, etc. in the fort architecture. It may be noted here that the treatise like 'Ākāśabhairavkalp' composed during the reign of Vijayanagar rulers, recommends some of the new elements of fort architecture along with the traditional Indian elements. In the following lines, an attempt has been made to describe the new and revised elements introduced after the advent of the Muslims.

Glacis.

It is a sloping earthen mound generally built along with the edge of moat. The purpose of glacis was to obstruct the easy approach of enemy to the foot of wall. It was undoubtedly the preventive measure against the excavating tunnel to the foot of wall. It also served as an effective cover against gun fire.[50] We are getting the specimen of glacis in the forts like Bidar, Gulburgā, Daulatābād, Golkoṇḍā, etc.

Barbicans.

The gateways of medieval forts, were approached from across the moat by means of drawbridges.[51] Further these gateways were provided with barbicans for the protection of gateways. We find such barbicans at the gateways of forts like Bidar, Gulburgā, Daulatābād, Warangal, Bijāpur, etc. At Naladurg the barbican is also provided with arched gateway. (Pl. I a)

Machicolations.

Sidney Toy explains, 'Machicolations' were holes formed in the roofs of gateways and entrance passages through which boiling pitch, stones, darts and other missiles were thrown down on the heads of the enemy below.'[52] Further he adds,'when over the entrance to the gateway, they (Machicolations) also enabled the defenders to quench fires lighted by besiegers to burn down the gates.'[53] The systematic machicolations were constructed over the gateways after the 14th century A.D. The device of machicolation was first introduced by Firozashah Tughluq about 1354, when he constructed the city walls of Delhi.[54] The Bahāmanī rulers generally adopted the method of machicolations which appear promiently in the forts of Gulburga, Naladurg (Pl. I b) Sholapur, Golkonda, Bijapur, etc. (Fig. 32) Curious enough to note that the fort of Chākaṇ built in 1294 is provided at certain gateways with machicolations. It may be presumed that perhaps it is the later addition to the fort.

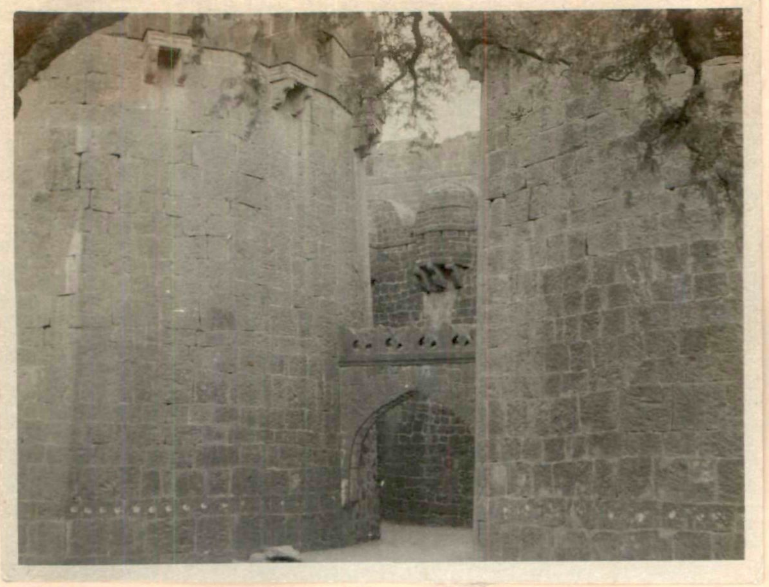
When the fort of Ashirgad was captured by the Mughals in 1601 , it was reported that, 'on every bastions there was large iron cauldrons, in each of which twenty or thirty maund of oil could be boiled and poured down upon the assailants in case of assault.'[55] Like gateways, the bastions were also provided with machicolations. These machicolations were useful to break down the attempts of enemy of digging pent house and saping mines, etc. The forts like Ashirgad, Sholapur, etc. were provided with machicolations to the several bastions. The text like 'Ākāśabhairavkalp' is silent on machicolation.

Gateways.

In Bahāmanī fort, we find the right angled or crooked entrance through the gateways in the walls. The entrance of barbican was also generally kept in right angle to the main gateway. The reason for constructing the gateways in right angled manner was that the enemy could be puzzled after rushing through the barbicans or first gateway and could be trapped amidst the attack made by the defenders from guard rooms. These crooked entrances first appeared in the fortifications of Baghdad in the 8th century A.D.[56] The citadel of Cairo constructed during the 12th century was provided with these so called crooked gateways.[57] According to Sidney Toy, 'among the most scientifically designed gateways of the later part of twelth century are those built by Saladin at Cairo, 1170-1182.'[58] The method of constructing the crooked gateways was borrowed by the Muslims directly from the Arabs.

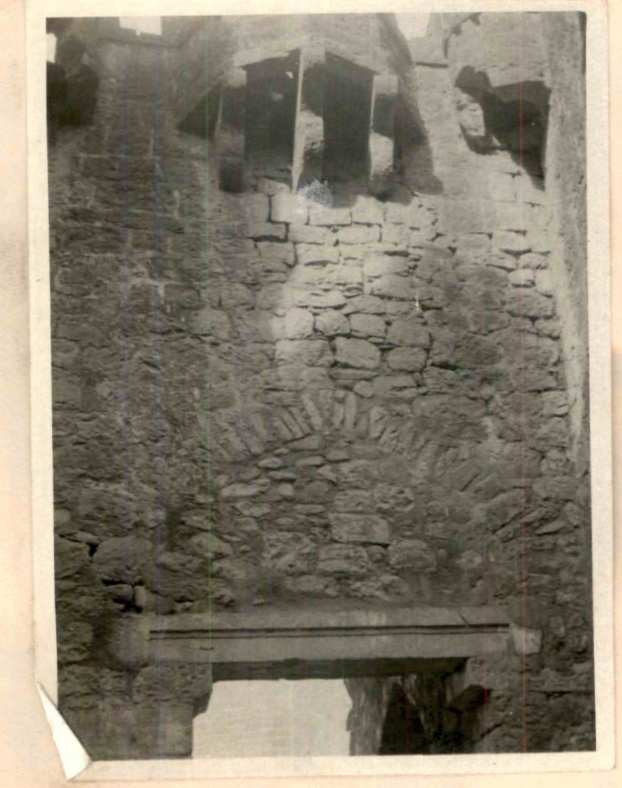
The gateways of Bahāmanī forts were designed in right angle manner. We have the best examples of such doorways at Bidar (Fig. 4), Gulburga, Sholapur, Daulatabad, etc. At Daulatabad the entrance of barbican was kept open in such a way that the right angle was formed to the main gateway (Fig. 53). Perhaps it was a later addition made by the

Pl. I

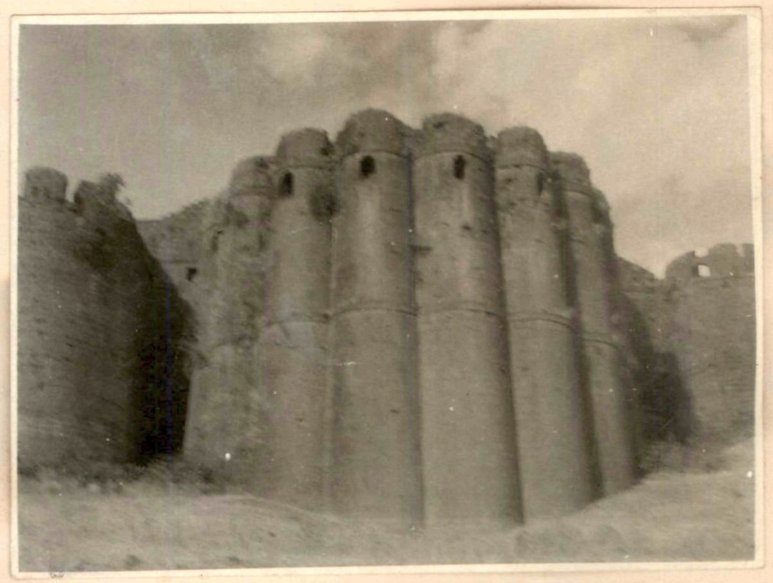


a

Gateway - Naladurg

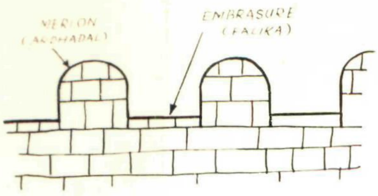


b. Machicolation, Naladurg

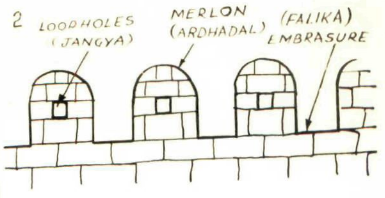


c. Bastion Naladurg

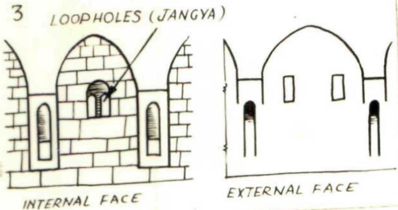
d. Bastion Janjirā


MERLON
(ARDHADAL)
EMBRASURE
(FALIKA)

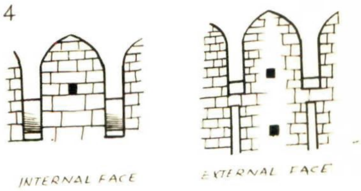
2


LOOPHOLES
(JANGYA)
MERLON
(ARDHADAL)
(FALIKA)
EMBRASURE

3

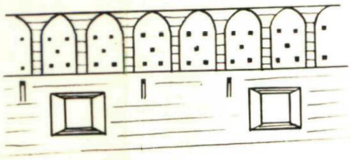

LOOPHOLES (JANGYA)
INTERNAL FACE
EXTERNAL FACE

4

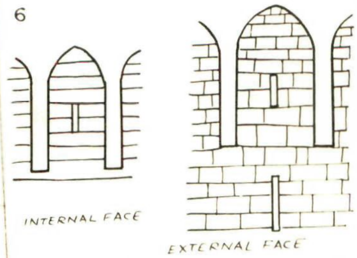

INTERNAL FACE
EXTERNAL FACE

5

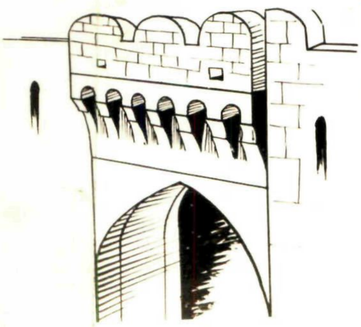
(LOOP HOLES FOR BARRAGE)



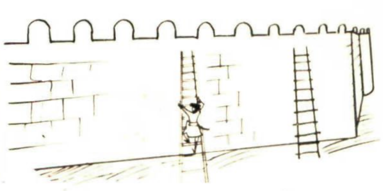
6


INTERNAL FACE
EXTERNAL FACE

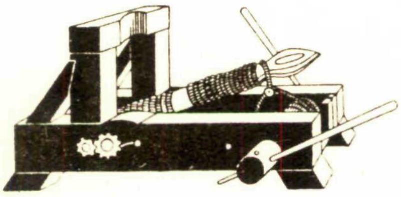
7 MACHICOLATIONS (ZAROKHE)



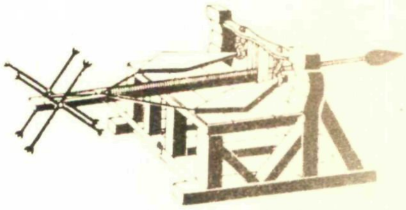
8 .



SCALING LADDER (NARDUBĀN)



CATAPULT



BALLISTA

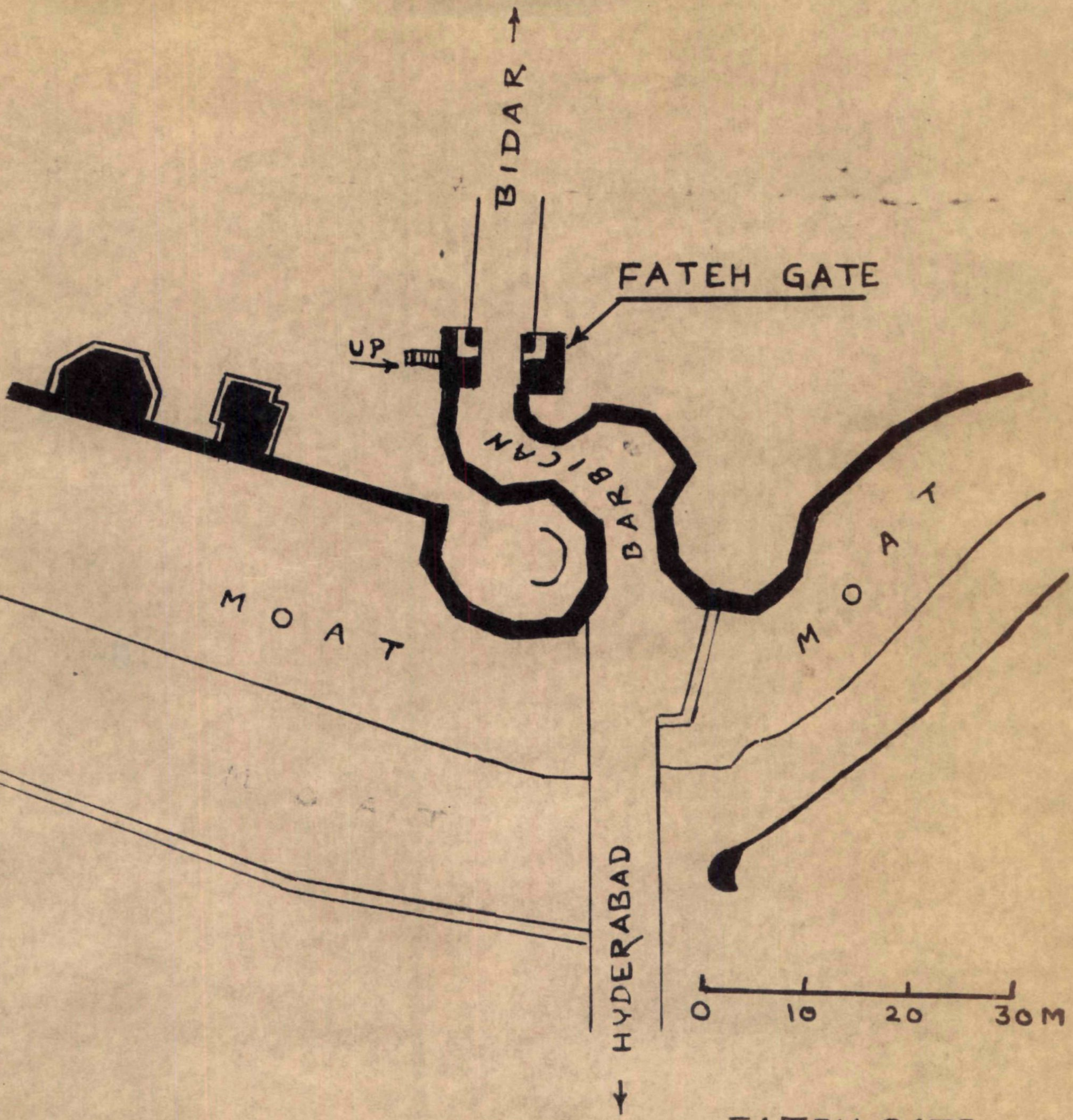
Muslim rulers.

In the 'Ākāśbhairavalkalp', the theory of right angle entrance is well described. It is said that if a layman introduces himself through the east gate, he should be compelled to find out the way towards the south; if he enter~~e~~s through the south gate, he should find out the West gate; if he makes entry by the West gate, he should go towards the north for second gateway; and if he attends the north gate way, he must turn to east for further entrance[59] It is clear that this theory was based on the method of crooked or right angled gateways.

The gates made of stout wood were generally used so far as the outer or first gateways were concerned. These doors were often plated with iron and studded with iron spikes. Various forms of iron spikes were used; of which the four-pronged spikes at Gulburga, pointed spikes at Daulatabad and Ahmednagar and lily form spikes at Sholapur (Fig. 5b) were prominent. The reason for providing iron spikes was that the elephants were frequently brought up to batter in the wooden gates.[60]

In the 'Ākāśbhairavkalp' it is mentioned that the door should be plated with iron and should be studded with spikes so that they could be served as 'Ankuśa' for checking the elephants trying to batter the door.[61] Sometimes iron chains were drawn across in front of the doors as a precautionary measure. We find such iron chain hanging at

Fig. 4


BIDAR →
FATEH GATE
UP
BARBICAN
MOAT
MOAT
MOAT
HYDERABAD
↓
0
10
20
30M

FATEH GATE

BIDAR

present at the entrance gateway of Daulatabad fort.

The doors were generally secured when closed by a heavy timber bar. This bar was drawn across the opening out of socket on one side and the end inserted in a socket on the other. We have already seen that the door of the east gateway of Gulburga fort was provided with a timber bar in such manner that it could work as a stumbling block. Almost all the medieval forts had enjoyed the advantage of timber bar for securing the doors of main or first gateways when closed. In the Ākāśbhairavakalpa it is stated that the doors should always be provided with Argalā[62] or timber bar.

Bastions.

It was an old practice to strengthen the fort wall with bastions constructed at regular or irregular intervals as well as at strategic places. Generally the bastions were semi-circular, but sometimes they were square. The bastions flanking the entrance gateways were often constructed octagonal or hexagonal. Sometimes they were protruding to curtain walls. We find such protruding bastions at Sholapur fort. After the introduction of artillery the importance of bastions was raised. They were used for mounting the guns of great calibre which could command the extensive area. Like semi-circular bastions, the bastions having a number of lobes were introduced. At Daulatabad, three-lobed bastions were constructed at certain points, whereas we find some nine-lobed bastions at Golkonda and Naldurga forts (Pl. ~~II a~~ I C)

The reason for mulitiplying the lobes was to extract more and more extensive area under the command of guns mounted on the platforms of bastions. At Daulatabad fort, we can see almost all types of bastions viz. circular, semi-circular, square, rectangular, two-lobed, three-lobed, hexagonal, octagonal, etc. In the Mudgal fort, the circular and square bastions were built in such manner that two square bastions were flanked by circular bastions. So far as the marine forts were concerned, the circular bastions were generally found useful to command the extensive area. We find such bastions at Janjira.(Pl. ~~IIb~~ Id).

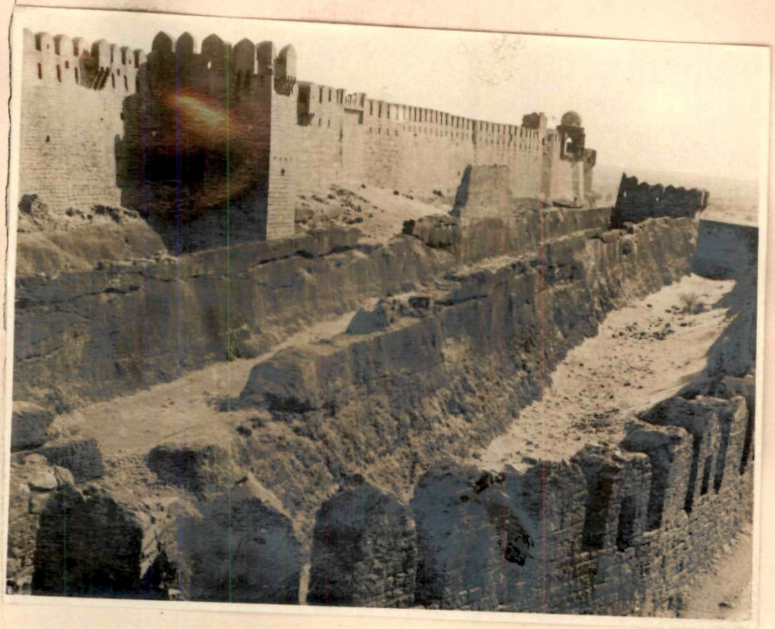
Ascent to the Wall-Walk -

We have already seen that the flights of large steps resembling to the ghats were provided to the fort Warangal in order to facilitate the rapid climbing of garrison within the fort. At Parenda fort, the slope of terrain from within the fort up to the wall towards East was provided to facilitate the easy ascent of garrison within the fort (Fig. 2b). Such slope of terrain is also seen at Bidar fort.

Wall-Walk -

Generally the wall-walks were constructed of considerable width in order to facilitate the movements of garrison within the fort. An access to the wall-walk was normally from the flights of steps but sometimes through the slope of the terrain as mentioned above. At Vellore fort, two stair-cases were provided at certain places for facilitating the movements of garrison ~~(Fig. —)~~.

Pl. II



Triple moat, Bidar

b. Gajaśārdula, Janjirā

c. Fortification, Panhālā

d.
Pratāpgad

Pl. II

e - Fortification, Pratāpgad.

f. Bhavanī temple, Pratāpgad.

Curtain Walls -

The curtain walls are constructed of great thickness and height. Reduplication of curtain walls was introduced for strengthening the defence of forts. We find double line of curtain walls at Gulburga, Raichur, Madura, Bidar, Vellore, Parenda, etc. At Parenda the inner wall is constructed of more height than outer in order to command not only space between the two but also the field beyond. A number of successive lines can be seen at Daulatabad fort (Fig. 5a).

Military Structures -

Besides the new or revised elements of fort architecture, the other military buildings like the magazines, gra~~i~~naries, pavilions, donjons were constructed within the forts during 14th to 16th centuries A.D. The pavilion at Rāichūr, the water pavilion at Naḷdurg, the donjon at Gulburgā, the gra~~i~~naries at Panhāḷā, the palace at Daulatābād, the tank of great length and breadth (Hāthi hauz) at Daulatābād, the magazines at Bidar and Janjirā are the best specimen of military structures raised during the period under discussion.

Significance of hill forts -

We have already seen that the rulers like the Śilāhārās, Chālukyās and Yādavās held their capitals on hill forts. (Fig 6a) After the advent of Muslims, the importance of hill forts was gradually reduced. The fortified cities like Bidar, Bijapur, Gulburga, Sholapur, etc. became more prominent. The Bahāmanī rulers selected the places like Ahmednagar, Gulburga, Bidar, Golkhonda and Bijapur, which lie in the fertile plains, as their capitals. The reason for the development of fortified cities may be explained in two ways:

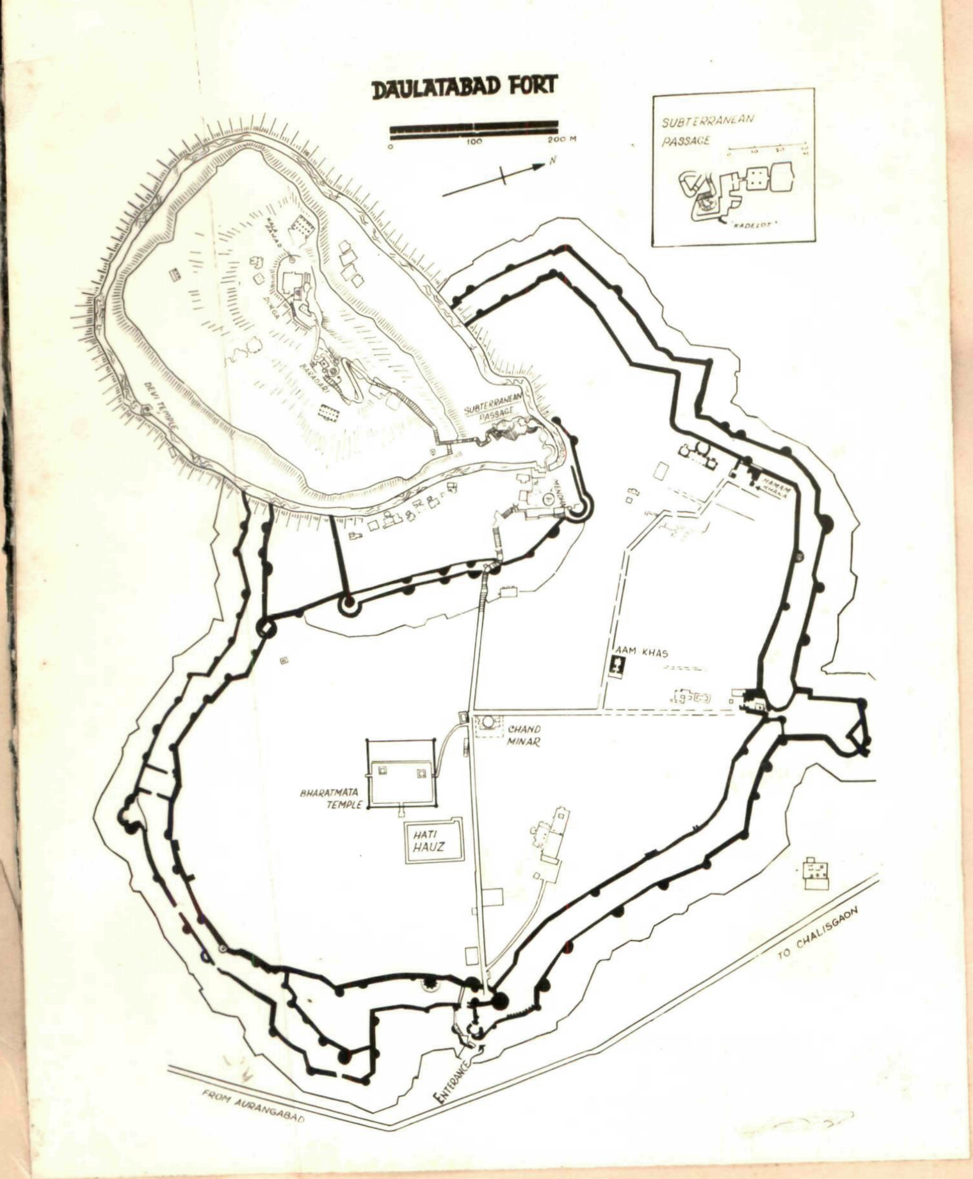
1. The Bahāmanīs were adept in the fort architecture and able to construct the strong curtain walls around the cities with all sorts of defensive measures introduced so far. Further they had to afford the protection to the civil population of important centres like Sholapur.

2. The Bahāmanī territory of the Deccan, which includes the parts of Maharashtra, Karnatak (Mysore) and Andhra, was almost fertile. It was hardly possible to defend such plain territory, if capitals were established on hill forts. For swift and rapid movements of troops, the mountainous area and hill forts proved always troublesome. Therefore the Bahāmanīs selected the towns of strategic importance for their capitals. But they never neglected altogether the hill forts within their region. The forts like Daulatābād, Māhūr, etc. played an important role in the history of the Bahāmanīs.

In Europe too, the importance of medieval castles of peculiar natural strength was reduced after 16th century. Instead of them, the fortified cities grew up rapidly. The reason explained for this change is befitting to the new defensive system introduced by the Bahāmanīs.

'Thus the usefulness of the medieval castle might have diminished less rapidly had it not been that, with larger forces engaged, they could no longer contain a significant fraction of them. A castle holding a few score of

Fig. 5


DAULATABAD FORT
0
100
200 M
N
SUBTERRANEAN PASSAGE
"KADELOT"
KALA PAHAD
DURGA
BARADARI
DEVI TEMPLE
SUBTERRANEAN PASSAGE
MENDHA
HAMAM KHANA
AAM KHAS
CHAND MINAR
BHARATMATA TEMPLE
HATI HAUZ
TO CHALISGAON
FROM AURANGABAD
ENTERANCE

a

b

men could be safely neglected, or neutralised by a small detachment until it could be reduced at leisure, without affecting the main compaign. An effective defence work must be capable of holding some thousands of men and much artillery, stores and equipment, it requires roads or rivers for supply.For these reasons, as well as the desire to afford protection to the civil population, fortified towns rather than castles became the pivots of the new defensive system.'[63]

After establishing the supremacy in major part of the Deccan, the Bahāmanī rulers tried to reduce the rival powers of Vijaynagar, South Konkan, Gonds, etc. For the sake of our interest, the expedition of South-Konkan undertaken in 1469 by Mahmood Gawān, the Chief minister of the Bahāmanī ruler at Bidar, is noteworthy. The letters written in Persian by Mahmood Gawān have been discovered in which the picture of hardships suffered by him has been painted.[64] The account of this expedition proves three important facts.

1. The Bahāmanī rulers never neglected entirely the hill forts in the South Konkan.

2. They were also aware of the fact that the strength of Sangameshwar Kings lay in their impregnable hill forts.[65]

3. Although detachment under Mahmood Gawān was engaged in reduction of forts in South-Konkan for three years, the government seat at Bidar was never affected. The considerable small territory of South Konkan, although mountainous, full of forests and with several impregnable forts, was blocked continuously for three years and in the

end the king of Sangameshwar was compelled to surrender.

The impregnable forts like Visāḷgad, Rāngaṇā, Balawārā, Māchāl, of South-Konkan were captured by Mahmood Gawān by 1472 and completed his task.

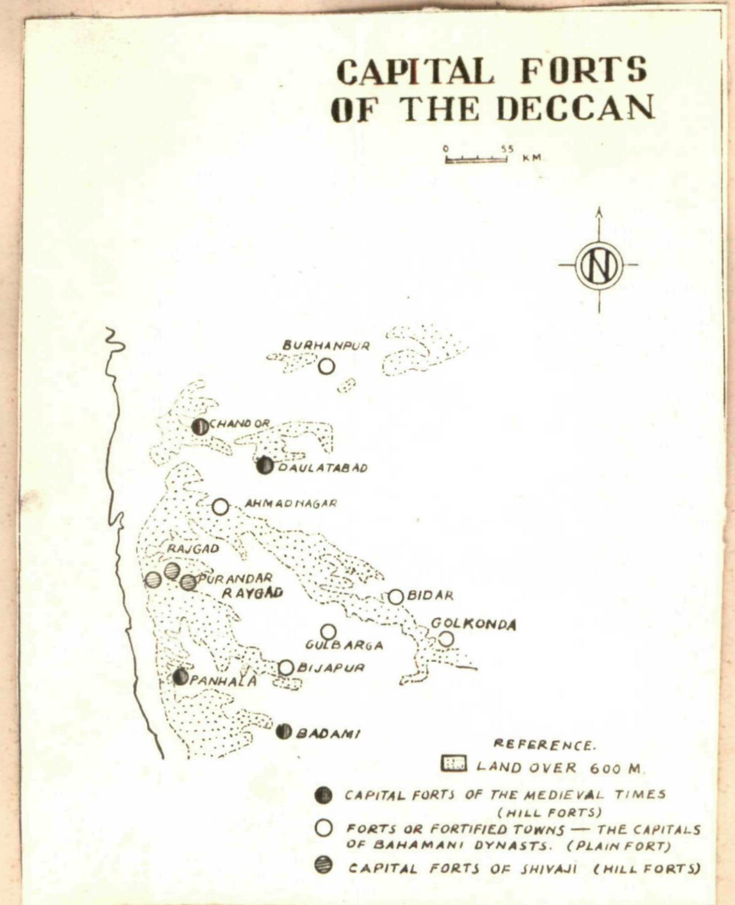
So it is clear from the preceding lines that the early Bahāmanī rulers never neglected totally the significance of hill forts, particularly in South Konkan. The forts of South Konkan were necessary to capture in order to keep the south-Western Sea-front safe~~guard~~.

Hill forts converted into guard posts -

The cruel assassination of Mahmood Gawān in 1481 accelerated the process of decline of the Bahāmani kingdom. Malik Ahmed, one of the Subhedārs of Bahāmanī, declared his independence in 1490 and founded the Nizāmshāhi at Ahmadnagar. He captured several forts of Konkan and Junnar provinces. The history of the Nizām dynasty written by Ali bin Ajij Ullāh gives the account of several forts caputred by Malik Ahmed. From this we know that the 'Killedārs' of Shivneri, Lohagad, Tung, Tikonā, Purandar, Bhorap, Māhulī were Hindus. All these fortresses were treated as merely guard posts for the respective units under their command.

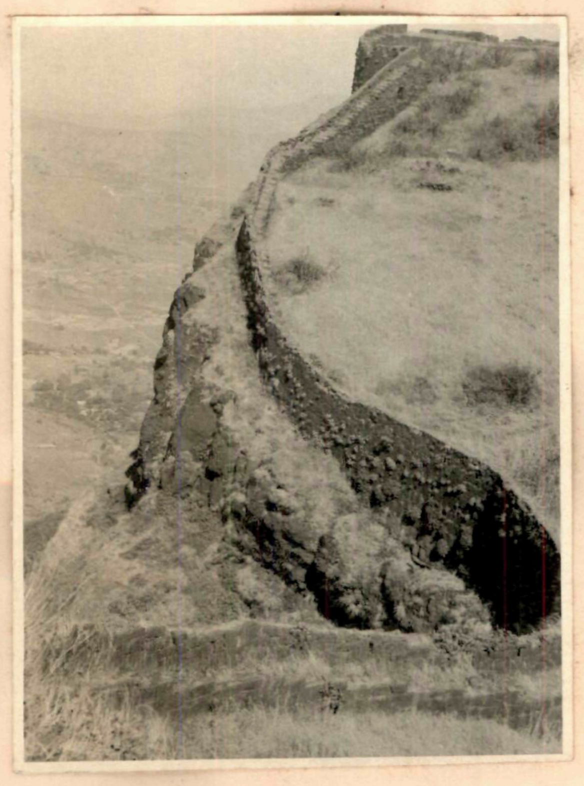
After the fall of Ahmednagar[66] Malik Ambar resisted the power of the Nizamshahi in the teeth of bitter opposition of the Mughals. He selected Pareṇḍā, Junnar and Daulatābād in succession as temporary seats of safety for the new Sultan Murtuzā Nizāmshāh. During the time of this crisis,

Fig. 6


CAPITAL FORTS OF THE DECCAN
0
55 KM
N
BURHANPUR
CHANDOR
DAULATABAD
AHMADNAGAR
RAJGAD
PURANDAR
RAYGAD
BIDAR
GOLKONDA
GULBARGA
BIJAPUR
PANHALA
BADAMI
REFERENCE.
LAND OVER 600 M.
CAPITAL FORTS OF THE MEDIEVAL TIMES (HILL FORTS)
FORTS OR FORTIFIED TOWNS — THE CAPITALS OF BAHAMANI DYNASTS. (PLAIN FORT)
CAPITAL FORTS OF SHIVAJI (HILL FORTS)

a

Pl. III



b. Viśālgad Fort

a. Toraṇā Fort

the hill forts of the Deccan were totally neglected and most of them lost their political importance till the rise of Shivaji.

Enterprising Policy of Shahaji -

After the death of Malik Amber,[67] Shahaji, the father of Shivaji, tried to re~~e~~establish the power of Nizāmashāhī in the name of Murtuza Nizāmshāhā II. While resisting the supreme power of the Mughals, Shahaji found defence impracticable in the open plains. Consequently, he selected the fort of Pemgiri;[68] as centre of his activities. After finding it impossible to defend the kingdom from that fort, he retired to Māhulī.[69] Before retiring to Māhulī, Shahaji resorted to hill forts like Toraṇā and Koṇḍāṇā when he was pursued by Khān Zamān, the Mughal chief.[70] The importance of hill forts was thus again raised to some extent during the period of Shahaji. It may be noted that Shahaji recognised not only the importance of hill forts but of the mountainous western ghat and the Konkan which were extremely ex~~e~~cellent from the defence point of view.[71] Shahaji's attempts proved futile when the sultan of Bijapur made ~~of~~ a treaty with the Mughals in partitioning the Nizāmshāhī. He accepted the service under Bijapur, leaving his task unfinished. All these experiments of Shahaji proved valuable lessons of guidance to his son Shivaji who carved his 'Swaraj' in the mountainous area of the Western ghats and the Konkan with the help of several impregnable hill forts.

~~SP7717~~
Th. 3169

Contribution of the Bahāmanīs to the hill forts -

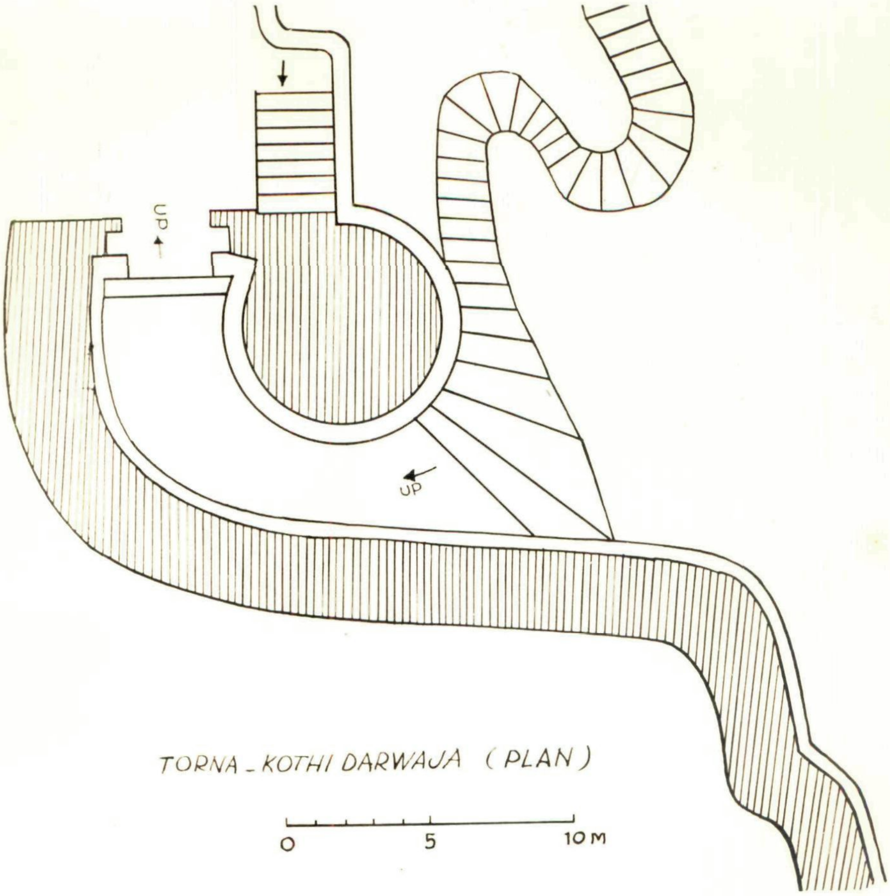
Although the hill forts were neglected in later period, the Bahāmanī rulers strengthened some important hill forts by applying the new defence measures. Forts like Purandar, Sinhgad, Toraṇā, Gāḷaṇā, Jivadhan, Shivneri, were strengthened with several new elements of advanced fort architecture. Some of them are as below:

1) Instead of barbican, the protruding bastions were constructed to command the winding approaches. We find such bastions at Purandar, Toraṇā, etc. (Fig.7a,b)

2) Along the crest of the scarp and at the edge of the summit, the curtain walls were constructed. We find such curtains at Purandar, Sinhgad, Vishāḷgad, Trimbak, Sālher etc. All these curtain walls were provided with battlements and parapets of narrow width.

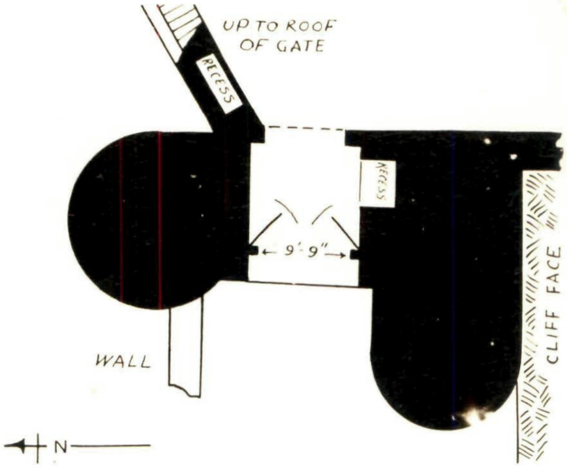
In the later period (1600-1648) as we have seen, the hill forts remained only as guard posts. Except Shahaji, none could recognise their significance. In the 17th century, Shivaji exploited the full advantage of hill forts, which were no doubt strategically important so far as the western ghats and the Konkan territory were concerned, and established his power in the Deccan. Thus he opened a new era in the military history of India in general and the Deccan in particular.

Fig. 7



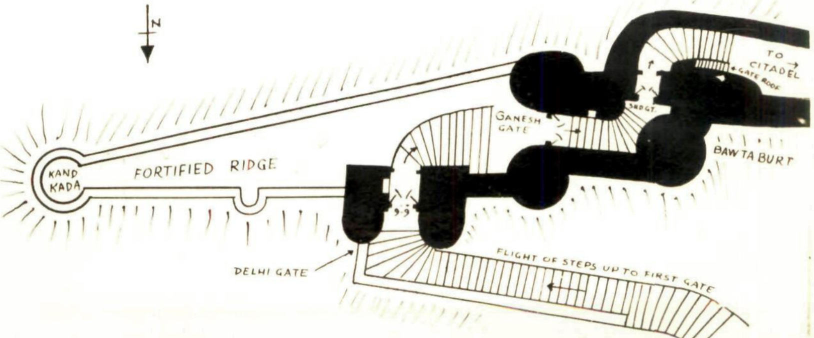
TORNA _ KOTHI DARWAJA (PLAN)

a


UP TO ROOF OF GATE
RECESS
RECESS
9'-9"
WALL
CLIFF FACE
N

PURANDHAR . PLAN OF THE LOWER GATE OPENING TO THE TERRACE

b


N
KAND KADA
FORTIFIED RIDGE
9-9
DELHI GATE
GANESH GATE
3RD GT.
TO CITADEL
GATE ROOF
BAWTA BURT
FLIGHT OF STEPS UP TO FIRST GATE

PURANDHAR . PLAN OF THE GATES TO THE CITADEL

References (Notes)

1. Sabhāsad - P. 105.

2. Rv. II. 8

3. RV. V 39.7; VII, 25-2.

4. RV. IV. 47.2; VII. 6.5.

5. RV. IV. 30.20.

6. RV. II. 35.6.

7. RV. I.58.5; X. 101.8.

8. RV. II. 20.8.

9. RV. VI. 47.2; VII.6.5.

10. Taitoriya Brāhmaṇa VI.2.3.1.

10.—A. Taitīriya Samḥita - VI, 2.3.1,
Ait. Brā. 1,23. Śat. Brā. III, 4, 3-5.

11. Date G.T. : The art of war in Ancient India P.29.

12. Panasikar W.L. (ed.) - The Rāmāyana of Vālmīkī- Yuddha
Kāṇḍ, III, 1-33.

13. Roy P.C. (Tran).
- The Mahabharata Vol. II, Pt.I, P.38.

14. Ibid.

15. Mc Crindle - Ancient India P.65.

16. Ibid - P.209.

17. In Europe too, the comprhensive work on military architecture was composed by Philo of Byzantium during the second century B.C.

18. Arthaśāstra - BK II, Ch. III, 51.

19. Ibid.

20. Ibid - BK VII, Ch. X, 292.

21. Ibid - BK II, Ch. III, 51.

- Reduplication of ditches was introduced in Western Europe after 4th cent B.C.

- The fort at Bidar constructed in 15th century is provided with triple moat. (Pl. II 3).

22. Arthaśāstra - BK. II, Ch. III, 51.
    - The roots of lilies could easily ent~~o~~angle the ~~P~~person trying to cross the moat.

23. Arthaśāstra - BK. II, Ch. III, 52.

24. Ibid.

25. Ibid, 53,

25. Here Kautilya might be suggesting a glacis.

26. Arthaśāstra - BK VI, Ch. I, 256.

27. I.A. XI P.227.

28. Mahalingam T.
    South Indian Polity, P. 276.

29. Yazadani G.
    The story of the Archaeological deptt., Hyderabad, Deccan - P.7.

30. Kuraishi and Ghosh - Rājgīr - PP. 8-9.

31. Ibid.

32. Sharma Y.D. - Exploration of Early Historic Sites, AI, No.9, P. 147.

33. Mate M.S. - Early Historic Fortifications in the Ganga valley - Purātattva, No.3, P.8.

34. Lal. B.B. - Śiśupālgarh - an early historic fort in Eastern India - AI, No.5, P.74.

35. Ibid. P.75.

36. About this ancillary passage, Mr. B.B. Lal observes, 'at a certain fixed hour in the night, the inner gate was closed, stopping all vehicular traffic beyond this point; pedestrian, however, could get in or out through the ancillary passage' - A.I. no.5, P.77.

38. Altekar A.S. -
    The Rashṭrakuṭās and their times, P.257.

39. Arthaśāstra - BK. II, Ch. III, 51; Ch.IV, 55.

40. According to the classification given in Ajñāpatra, this fort should be treated as merely a ground fort.

41. Panase M.G.
    Yādavkālīn Mahārashṭra, P.49.

42. Daultābād fort.

43. European author Vitruvious (30 B.C.)
 Says that the plan of stronghold should be polygonal, instead of square in order to obstruct the movements of enemies.

44. Daulatābād fort.

45. Warangal fort.

46. Brown Percy, Indian Architecture - Islamic period, P.69.

47. Toy Sidney - The fortified cities of India, Pp.21-22.

48. CHI. Vol. III, P.632.

49. Toy Sidney, Op. Cit., P.2.

50. Mate M.S.-Islamic Architecture, B.D.C.R.I. Vol.XXII,P.81.

51. Ākāśbhairavakalp refers to draw bridge.
 GKD - P.76, (ABK - XXVI - 20)

52. Toy Sidney - A History of Fortification, P.120.

53. Ibid.

54. CHI, Vol. III, P.590.

55. Elliot and Dowson - History of India - Vol. VI P.139.

56. Arnold Thomas and Guillaume - The Legacy of Muslims - P.169.

57. Ibid.

58. Toy Sidney - A History of Fortification, P.123.

59. GKD - P.76 (ABK - XXVI - 14-15).

60. When the gates were used to be studded with iron spikes, the practice of sending the elephants with an iron frontlet was introduced.

 Irwine - An army of the Indian Moghuls, P.171.

61. GKD - P.76 (ABK - XXVI, 19-20).

62. Ibid. (ABK. XXVI - 19).

63. Charles Singer - A History of Technology, Vol.III,P.369.

64. Some of these letters have been translated by Shri S.M. Pagadi in his Marathi work, 'Mahārashtra Āṇi Marāthe' (Pp. 22 to 27).

65. In one of the letters Gawān writes, 'The pride of the king for the possession of these hill forts is really reasonable.' (Pagadi - op.cit. P.24), In another letters he writes, 'the king of this area became arrogant as he possessed very impregnable hill forts' (Pagadi - Op. Cit., P.25).

66. In 1600, Ahmadnagar, the capital of Nizamshāhi, fell in the hands of Mughals and young king Bahadurshah and his family were imprisoned in Gwalior fort.

67. Malik Amber died on 14th May 1626.

68. SCP - P.16.

69. Ibid. - P.17, It is a hill fort in Thana dist.

70. Khare G.H. - Swarājyatīl Teen Durg, P.14.

71. When Shahaji deserted the Mughal service in 1632, he seized the districts of Nasik, Trimbak, Sangamner, Junnar and part of North Konkan.
(Sarkar J. - House of Shivaji, P.33).

Chapter III

The Deccan Forts

Geographical and Geological Background

Geographical limits of the Deccan

The word Deccan is derived from the Sanskrit word Dakshiṇa i.e. the land lying towards south of the Vindhyās. The Periplus of Erythrean Sea, which was written between A.D. 70 and 80, mentions the ports of Soparā and Kalyāṇ in the 'Dachinavades' i.e. 'Dakshiṇapatha' or 'Dakshiṇa pradesh' or the Deccan. However, the Deccan is considered to comprise the land between the Narmadā and the Krishnā and includes the present state of Maharashtra, and parts of the states of Mysore and Andhra.

The Maratha country in the times of the royal period was well confined to the Western edge of the Deccan plateau and the Konkan.[1] For our purpose, the Deccan (15°-44'-21°-10'N and 73°-15' 76°- 15' E) is considered as the tract bounded on the north by the Tāpī, on the south by the upper courses of the Krishna and the Konkan, the narrow coastal plain between the Western Ghats and the Arabian sea. In the period under consideration the Deccan was covered by the present districts of Dhulia, Jalagaon, Nasik, Aurangabad, Bhir, Osmanabad, Ahmadnagar, Sholapur, Poona, Kolhapur, Sangli, Satara, Kolaba, Thana, Ratnagiri of Maharashtra and the parts of Bijapur and Belgaum districts of Mysore (Fig. 8).

The natural barriers -

As we know that the Vindhyās, the chain of hills, running across India from east to west, have cut the country into two distinct parts i.e. North and South. Beyond that towards south the Sātpurās lie between the Tāpī and the Narmadā. The region between the Eastern ghat and the above said two mountains, although passable to move towards South, is thickly forested and thus served as the natural barrier in ancient and medieval period.

The famous Burhanpur gap, in the Sātpurās, is not far away from Ashirgad fort.[2] We know from history that on almost all the occassions the Mughals have entered the Deccan through this gap.

Topography-

The Sahyādri mountain lies north-south. It divides the western edge of the Deccan Plateau into three distinct parts viz. (1) Ghāṭmāthā, (2) Desh and (3) Konkaṇ.

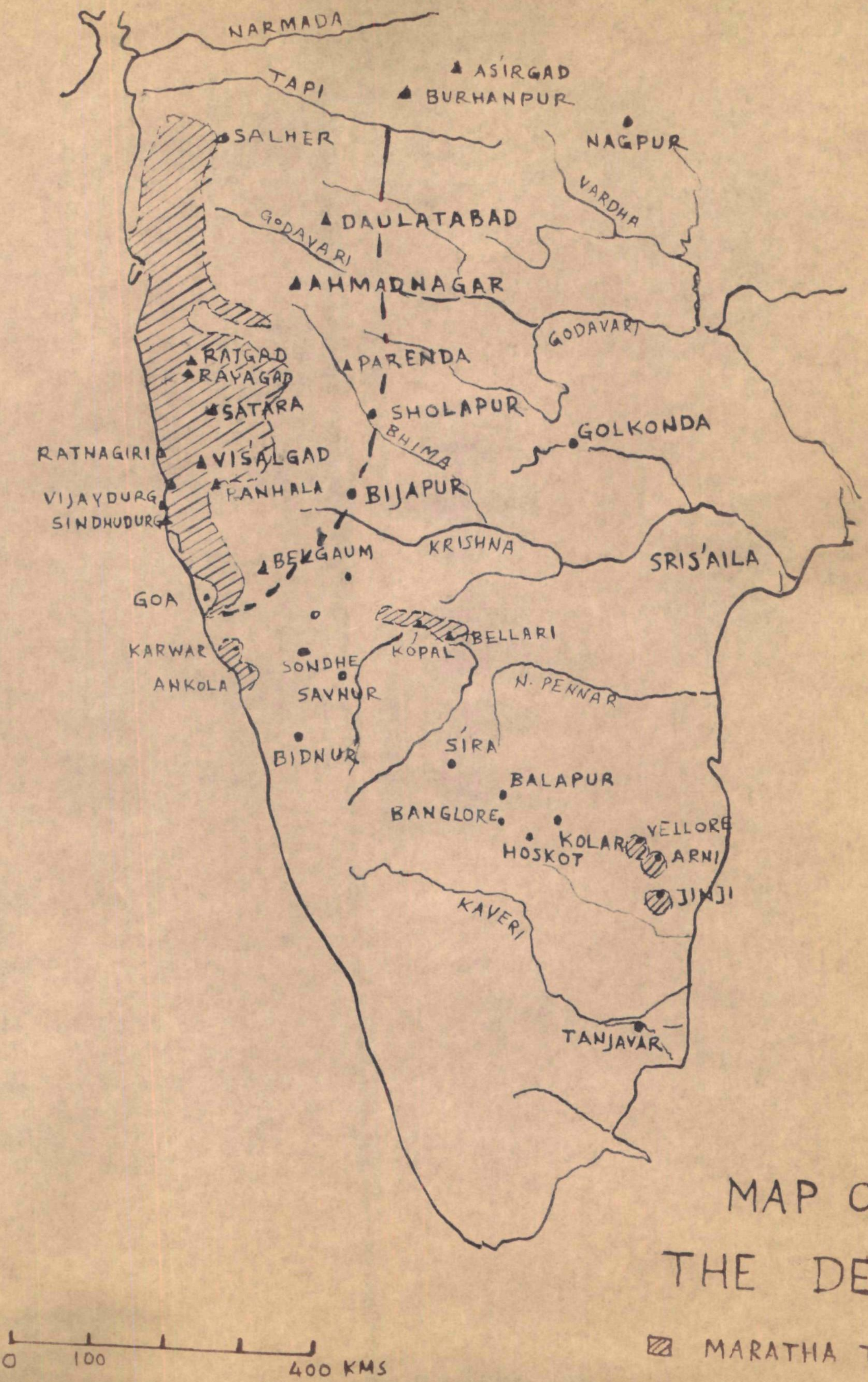
The top of Western ghats is called Ghāṭmāthā. The breadth of Ghāṭmāthā is about twenty to twentyfive miles.

The Western ghats appear as steep ranges from the Konkan side. The highest part of the ridge faces the Konkaṇ and the actual summit is generally two to three thousand feet above the Konkaṇ plain.

The top portion of Western ghats covers region lying between Hariśchandragad and the ghat of Phonda. Kaḷasubāī (5427 Ft. above M.S.L.) is the highest Peak of western ghats.

It is necessary to explain here the term 'Māvaḷs and Ners', the part of Ghāṭmāthā. The western belt of the Poona district

Fig. 8


NARMADA
TAPI
ASIRGAD
BURHANPUR
SALHER
NAGPUR
VARDHA
DAULATABAD
GODAVARI
AHMADNAGAR
GODAVARI
RAIGAD
RAYAGAD
PARENDA
SATARA
SHOLAPUR
RATNAGIRI
VISALGAD
BHIMA
GOLKONDA
PANHALA
BIJAPUR
VIJAYDURG
SINDHUDURG
BELGAUM
KRISHNA
SRIS'AILA
GOA
BELLARI
KARWAR
KOPAL
SONDHE
ANKOLA
SAVNUR
N. PENNAR
SIRA
BIDNUR
BALAPUR
BANGLORE
KOLAR
VELLORE
HOSKOT
ARNI
JINJI
KAVERI
TANJAVAR
0
100
400 KMS

MAP OF THE DECCAN

▨ MARATHA TERRITORY (1680)

--- BOUNDARY LINE.

running along the western ghats on the east is known as Māvaḷ.[3] It covers the valleys of the rivers and rivulets flowing in the western belt of Poona District.

To the east of western ghats the region is comparatively open and flat. This region is known as Desh, and is drained by gently graded rivers. The alluvial terraces are conspicuous in these valleys. Occasionally isolated hills are noticed in flat broad valleys. The main ranges running east-west in this region are Mahādeo, Bālāghāt and Sātmālā-Ajantā ranges. The basins of the rivers Krishṇā and the Godāvarī are included in this region. The other chief rivers of this region are Bhīmā, Pūrṇā and Tāpī. Except the Tāpī basin, which is drained to the Arabian sea, the rest of the region is drained to the Bay of Bengal. Mahādeo ranges are responsible for the separation of the Krishṇā Valley and the Bhīmā basin; whereas the Bālāghāt ranges distinguish the Bhīmā and the Godāvarī basins. The Sātmaḷā and the Ajantā ranges constitute a divide of the Tāpī and the Godāvarī basins.

The Konkaṇ border which extends along the coast line, is separated from the main land by the massive watersheds of the Sahyādri.

Rivers -

The easterly flowing rivers like the Godāvarī, Bhīmā and Krishṇā have long and gentle courses and they flow in broad open valleys. The westerly flowing Tāpī is an anomolous stream. The Tapi is flowing in an ancient rift valley formed due to geological factors. Other westerly streams, like Vaitarṇā, Ulhās, Sāvitrī, drain the Konkaṇ and are short and steep. The general drainage pattern is dendritic due to homogenous nature of the solid geology of the area.

Geology -

The region under study is covered by the Deccan traps or basalts of cretaceous-Eocene age. There are varieties of basalts like amygdaloidal, Porphyrilic, compact and aglomerates. These rocks are more or less horizontal and occur as distinct flows. Compact or massive basalts are generally well jointed while amygdaloidal basalts are poorly jointed. The basaltic flows are many times separated by reddish clay known as 'red boles'.

Morphology -

Owing to uniformity in texture and horizontality of basalts, these rocks have formed extensive gently sloping plateaux, measa and butt~~l~~e in the region. The step-like scenery is very common in the region. The scarps are well developed in compact basalts, while amygdaloidal basalts generally generate gentle slopes. The scarps are particularly well developed on most of the divides in the region. The scarp on the west side of the north-south running Sahyādri range is stupendous. Such scarps are also common in Mahādeo, Bālāghāṭ and Sātmālā-Ajantā ranges.

Climate -

The general climatic conditions are Monsoonal. There is a marked change in rainfall distribution. The temperature conditions do not change significantly.

Vegetation -

The vegetation is mainly governed by rainfall. The wet deciduous forests occupy the Konkaṇ and Western part of Desh. On Ghāṭmāthā as well as in Māvaḷ, the wet deciduous grades into tropical semi-evergreen. In remaining parts of the Desh, the natural vegetation is dry deciduous, thorn and scrub.

Soil -

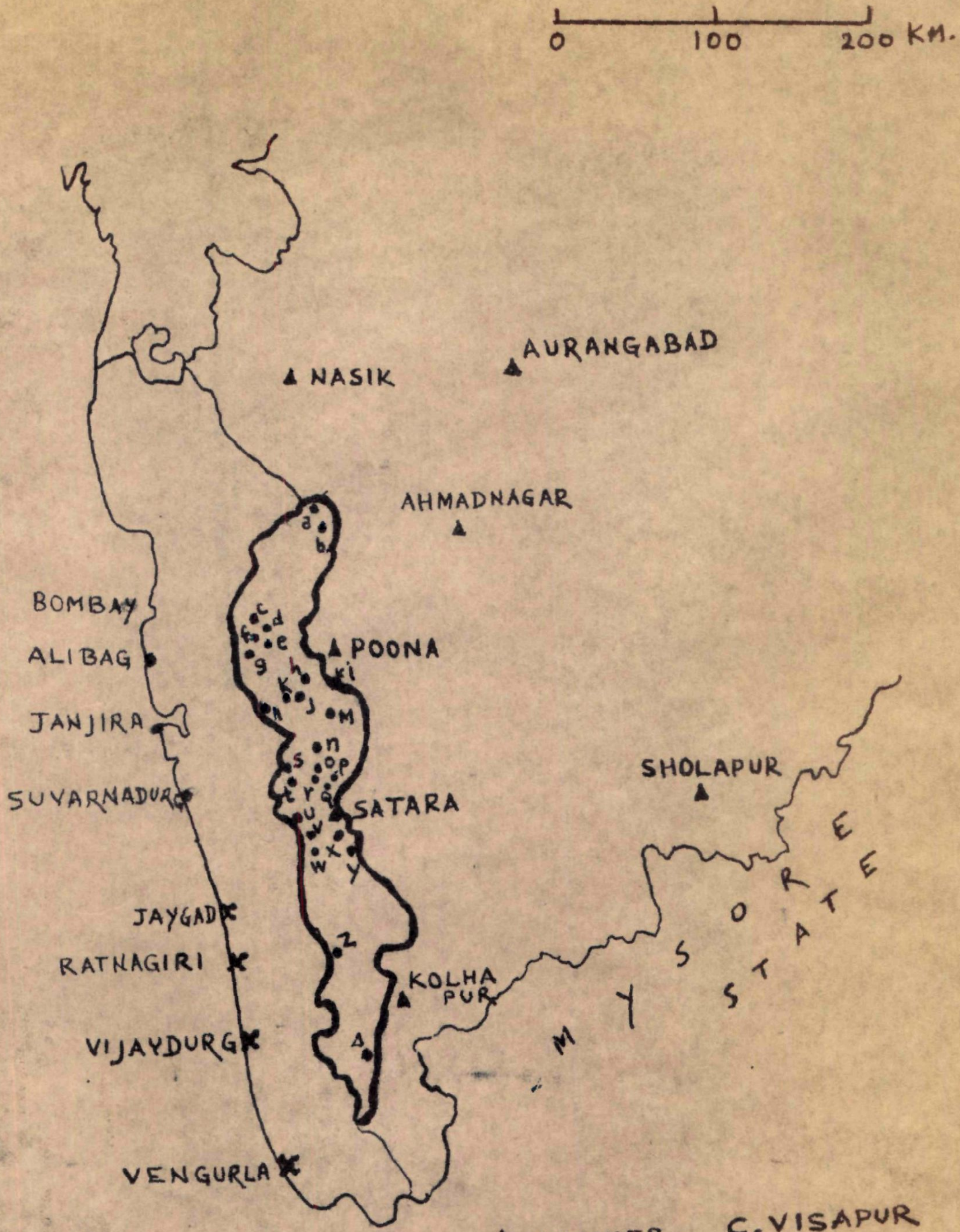
In Konkaṇ and Ghāṭmāthā, the soil is red and lateritic, whereas the black soil is common in rest of the area.

Forts in relation to natural factors-Forts on Ghāṭmāthā -

Ghāṭmāthā is famous for its historical antiquity. The ancient and well-known caves of Bhāje, Bedse, Kārle, Koṇḍāṇe, etc. were hewn in the western ghat region during the early Shātavāhana times. Nāṇe ghāt, an ancient trade route, is a part of the Ghāṭmāthā and it is famous for a number of earliest Shātvāhana inscriptions.

It is interesting to note that a large number of hill forts in this region are associated with the rock-cut caves. There is, however, no evidence to suggest that the erection of any of the forts was sychronous with any of the cave groups of the Shātvāhana period. It is necessary to point out that the caves excavated in this region were associated mainly with the religious activites and they lie on the anicent trade routes.

GHATMATHA & FORTS.


0
100
200 KM.
NASIK
AURANGABAD
AHMADNAGAR
BOMBAY
ALIBAG
POONA
JANJIRA
SHOLAPUR
SUVARNADURG
SATARA
JAYGAD
RATNAGIRI
KOLHAPUR
VIJAYDURG
VENGURLA
MYSORE STATE
a
b
c
d
e
f
g
h
i
k
j
l
M
n
s
o
p
q
t
r
u
v
x
w
y
z
Δ

a. HARISCHANDRA.
b. SHIVNER.
C. VISAPUR
d. LOHGAD
e. TIKONA.
f. TUNG
g. KORIGAD
h. KONDANA.
i. PURANDAR
j. RAJGAD
k. TORNA.
l. RAYAGAD
m. ROHIDA
n. PANDAVGAD.
O. VAIRATGAD.
p. CHANDAN
q. VANDAN
r. HATGAD.
S. PRATAPGAD
t. MAKARAND
u. VASOTA
V. DATEGAD
W. MORGIRI
X. SAJJANGAD
Y. VASANTGAD
Z. VISHALGAD
Δ. BHUDHARGAD

We have been getting references to hill forts since the times of Shilāhāras and Chālukyās i.e. after 6th century A.D. However, it should be admitted that the rock-hewn architecture was developed to a great extent during the early centuries of the Christain era. This evolutive science helped extremely the development of fort architecture of early medieval period. The art of excavating the caves was utilised in the hill fort complex for excavating the cisterns, the grain-sotres, the subterranean passages, the smooth and lofty scarps which are usually found in hill forts.

The important forts erected on Ghāṭmāthā are - Hariśchandragad, Jivadhan, Siddhagad, Shivneri, Prabaḷgad, Rājmāchī, Lohagad, Tung, Tikoṇā, Isāgad, Sinhgad, Purandar, Vajragad, Rājgad, Toraṇā, Rāyagad, Lingāṇā, Rohiḍā, Pratāpgad, Makarandgad, Hātgad, Guṇavantgad, Vishāḷgad, Bhudhargad, etc. (Fig. 9).

Some of these forts were erected on the main military routes of medieval period. The forts like Jivadhan, Lohagad, Vishālgad, Pratāpgad were located to command the routes or passes.[4] Some forts were erected to ensure the protection to the towns of political and commercial importance. The forts like Sinhgad and Purandar were the guard-fortresses of Poona. The fort Shivneri afforded well protection to the commercial town, ~~town~~ Junnar. Some forts which were covered by the curtains of hills and protected by other forts were strategically important. The forts like Rājgad and Rāyagad were chief among them.

Forts in Maval

As already mentioned, the Māvaḷ region is a part of Ghāṭmāthā. From the strategic point of view, the territory of Māvaḷ was were important in middle ages and therefore a number of forts were erected for commanding the region. The Shivneri fort commands the Māvaḷs known as Shivner and Minner. In addition to that it affords protection to Junnar, an important commercial centre of the medieval times. Chākaṇ, a ground fort, keeps the Māvaḷs like Ghotaṇ and Paud under its thumb. From Lohagad, ~~the~~ watch can easily be kept on the Nāṇe and Āndhra Māvaḷs. Tung and Tikoṇā afford the direct protection to Pavan Māvaḷ. The regions of Muse, can be commanded from Sinhgad, Torṇā and Rājgad are extremely helpful to keep watch on Gunjan, Kānad and Velvand valleys. Rohiḍā fort commands the Hirḍas Māvaḷ and Rohid Khore. It may be noted here that the early activities of Shivaji were associated with the region of Māvaḷs. His first capital Rājgaḍ, located in this region, possessed the great strategic value for the same reason.

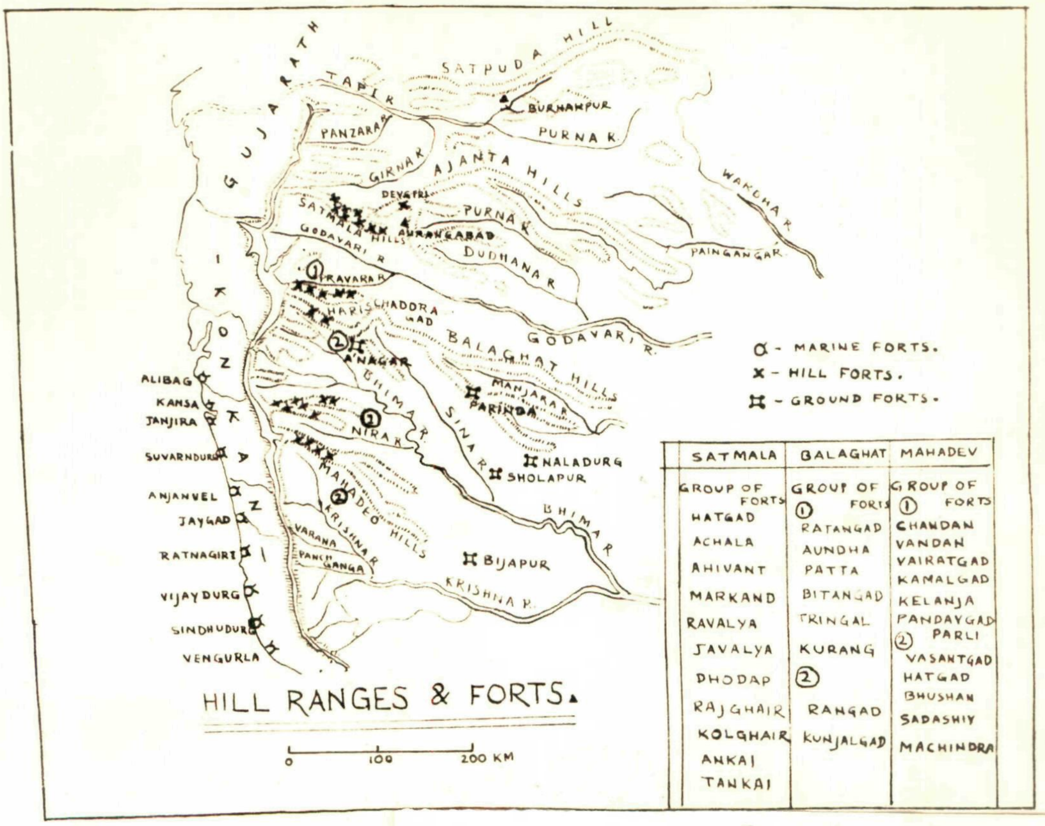
Forts in the Desh -

Like Ghātmāthā, the Sātmāḷā-Ajanta ranges of the Sahyādri are famous for ~~its~~ their historical antiquity. These ranges contain early evidence of rock-cut excavations. The caves at Pitaḷ-Khora and Ajanta were excavated in the early centuries of the Christianera. Later excavations are also to be found both at Ajanta and Ellora. The most interesting speciman of rock-cut architecture from our point of view is the famous 'Kailas' of the times of Rāshṭrakūṭa King Krishna I (757 - 783A.D.) which has been entirely cut out of solid rock with a scarp of 107' high at the back. The art of rock-cut architecture continued even during the times of the Yādavās. It is evident from the examples in the Ŝatmāḷā hill at village Pātaṇe (Tal.Chalisgaon, Dist. Jalagaon). This art of rock-cut architecture helped the development of hill fort architecture ~~prevailed in~~ of the early middle ages.[5] Chāndor and Devgiri (Daulatabad), the capital forts of Yādavās, were the impregnable forts in the Satmala-Ajanta ranges. The forts erected on the Ajanta ranges are especially famous for their subterranean accesses. The forts like Ahivant, Dhodap, Hātgad, Rājghair, Ankāī, Tankāī, etc. (Fig.102) were erected on the Sātmaḷā-Ajantā ranges. The forts ~~forts~~ like Chandan, Vandan, Kamalgad, Paraḷi, Vasantgad were constructed on Mahadeo ranges, whereas the forts like Aundha-Patta, Ratangad, etc. were erected on Bālāghāṭ ranges. (Fig. 102).

So far as the remaining part of Desh (the basins of the rivers) is concerned, we find that several ground forts were constructed during the age of the Bahāmanīs. This region was much more easy for military movements as compared to that of Konkan. The ground forts of Ahmadnagar, Sholapur, Bijapur, Naḷadurg and Parenḍā were famous for their strategic importance during the medieval period. (Fig.102).

In Godăvarī basin, the fort of Ahmadnagar acquired unique position as the place itself was strategically important.

Fig. 10

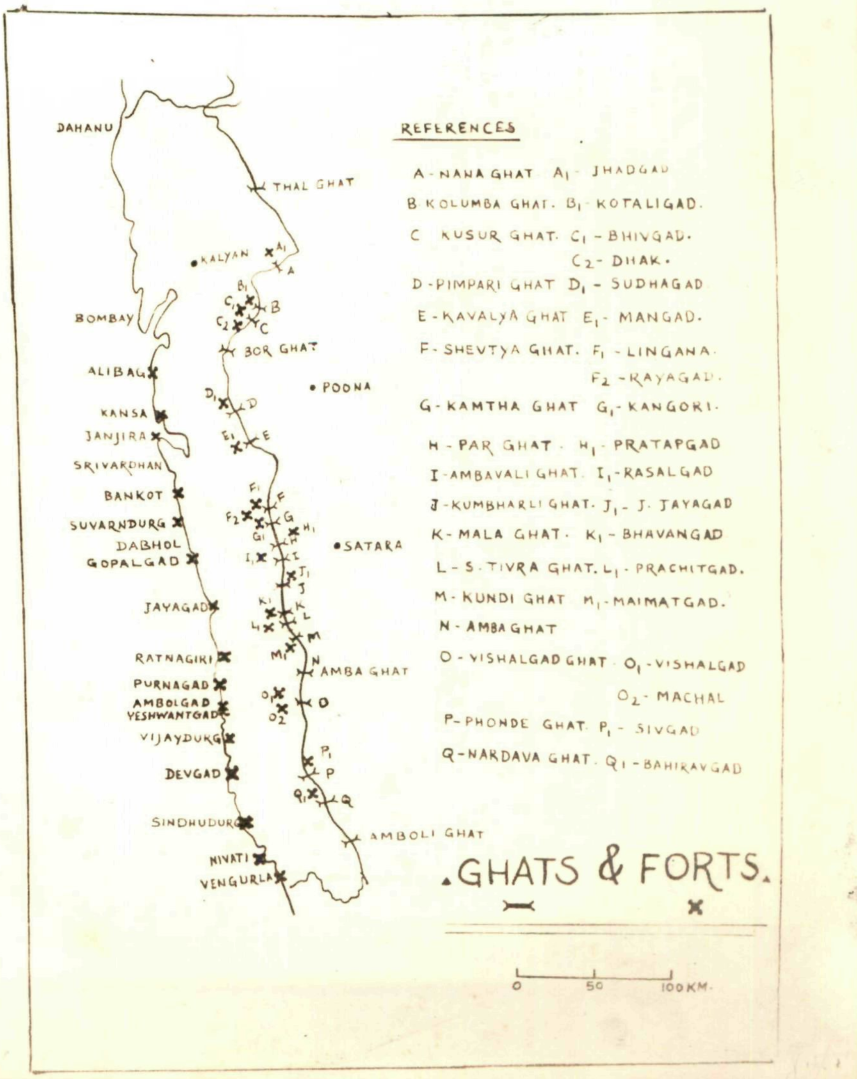

GUJARATH
TAPI R.
SATPUDA HILL
BURHANPUR
PANZARA
PURNA R.
GIRNAR
AJANTA HILLS
WARDHA R.
DEVGIRI
SATMALA HILLS
AURANGABAD
PURNA R.
GODAVARI R.
DUDHANA R.
PAINGANGA R.
PRAVARA R.
HARISCHANDRA GAD
GODAVARI R.
BALAGHAT HILLS
A'NAGAR
BHIMA R.
MANJARA R.
PARINDA
SINA R.
NIRA R.
NALADURG
SHOLAPUR
BHIMA R.
MAHADEO HILLS
KRISHNA R.
VARANA
PANCH GANGA
BIJAPUR
KRISHNA R.
KONKAN
ALIBAG
KANSA
JANJIRA
SUVARNDURG
ANJANVEL
JAYGAD
RATNAGIRI
VIJAYDURG
SINDHUDURG
VENGURLA
0
100
200 KM

HILL RANGES & FORTS.

α - MARINE FORTS.
× - HILL FORTS.
⌘ - GROUND FORTS.

SATMALA	BALAGHAT	MAHADEV
GROUP OF FORTS	GROUP OF ① FORTS	GROUP OF ① FORTS
HATGAD	RATANGAD	CHANDAN
ACHALA	AUNDHA	VANDAN
AHIVANT	PATTA	VAIRATGAD
MARKAND	BITANGAD	KAMALGAD
RAVALYA	TRINGAL	KELANJA
JAVALYA	KURANG	PANDAYGAD
DHODAP	②	② PARLI
RAJGHAIR	RANGAD	VASANTGAD
KOLGHAIR	KUNJALGAD	HATGAD
ANKAI		BHUSHAN
TANKAI		SADASHIV
		MACHINDRA

a


DAHANU
THAL GHAT
KALYAN
A₁
A
B₁
B
C₁
C₂
C
BOMBAY
BOR GHAT
ALIBAG
POONA
D₁
D
KANSA
JANJIRA
E₁
E
SRIVARDHAN
BANKOT
F₁
F
F₂
G
G₁
H₁
H
SUVARNDURG
DABHOL
I₁
I
J₁
J
SATARA
GOPALGAD
K₁
K
L₁
L
M
JAYAGAD
M₁
N
RATNAGIRI
AMBA GHAT
PURNAGAD
O₁
O₂
O
AMBOLGAD
YESHWANTGAD
VIJAYDURG
P₁
P
DEVGAD
Q₁
Q
SINDHUDURG
AMBOLI GHAT
NIVATI
VENGURLA
0
50
100 KM

REFERENCES

A - NANA GHAT A₁ - JHADGAD
B KOLUMBA GHAT. B₁ - KOTALIGAD.
C KUSUR GHAT. C₁ - BHIVGAD.
C₂ - DHAK.
D - PIMPARI GHAT D₁ - SUDHAGAD
E - KAVALYA GHAT E₁ - MANGAD.
F - SHEVTYA GHAT. F₁ - LINGANA.
F₂ - RAYAGAD.
G - KAMTHA GHAT G₁ - KANGORI.
H - PAR GHAT. H₁ - PRATAPGAD
I - AMBAVALI GHAT. I₁ - RASALGAD
J - KUMBHARLI GHAT. J₁ - J. JAYAGAD
K - MALA GHAT. K₁ - BHAVANGAD
L - S. TIVRA GHAT. L₁ - PRACHITGAD.
M - KUNDI GHAT M₁ - MAIMATGAD.
N - AMBA GHAT
O - VISHALGAD GHAT. O₁ - VISHALGAD
O₂ - MACHAL
P - PHONDE GHAT. P₁ - SIVGAD
Q - NARDAVA GHAT. Q₁ - BAHIRAVGAD

.GHATS & FORTS.

b

Aurangabad was also a strategically important city during 16th and 17th centuries. It was the Deccan head-quarter of Aurangzeb who constructed the fortification around the city in 1682.

The fort of Sholapur was recognised as an important stranghold as the town itself is the gateway of the Bhīmā and Krishṇā valleys. Its strategic importance was well recognised by the Marathas in their war with the Nizam and other southern powers.[6]

In the upper Krishna basin, Sātārā, the Maratha capital of of Shahu, the grandson of Shivaji, is located. The fort Ajinkyatārā (or Ajimtārā or Sātārā) afforded immediate protection by encircling the town except on the east. In Moghal -Maratha period, the town was recognised as strategically important for it afforded easy routes through the Bhīmā and Krishṇā valleys towards east and south.[7]

Another important city in upper Krishṇā basin is Kolhapur which is situated in an arc of the Sahyādri member.[8] The fort of Panhāḷā, the capital of early Hindu rulers, afforded direct protection to Kolahpur. The importance of Panhāḷā fort was raised particularly during the War of Independence (1689 - 1707) Kolhapur was made the capital of the branch of Rajaram, the second son of Shivaji, after 1730.

Forts in Konkaṇ

The land interspersed with huge hills and thick forests furnished the excellent protection to the Konkaṇ since early ages. The eastern border of the Konkan was well guarded by the Western ghats and the strongholds erected on the passes (Fig. 10b). Still we find that the network of forts was created to ensure the portection. The present Ratnāgiri dist. alone possesses fifty-two forts.

Although guarded from land side, the Konkan's coastal border was neglected and the Sea-board was not properly defended till the rise of Shivaji. In the times of Shivaji, the Portuguese established supremacy to a great extent on the Sea-line and thus the sea-borne trade was in constant danger.

It was Shivaji who realised the risk of foreign domination over the sea. He launched his naval programme as well as constructed and repaired several sea forts like Sindhudurg, Vijaydurg, Suvarṇdurg, Jaygad, Ratnāgiri, Kānsā, Alibāg, etc. (Fig. 10a).

Geological formation and forts

The hills of the Western ghats are steep sided, terraced and flat topped. The Western ghats are composed of almost horizontal lava flows. Their weathering produces a characteristic 'landing stair aspect.'[9] But the physical aspects of these ghats towards the South of Malabar is distinguished from these 'landing stair aspect' of the Deccan because of their undulating nature.[10]

Undoubtedly the above peculiar geological features of

provided or afforded

Western ghats of the Deccan rendered excellent sites for building the hill forts. Owing to their preciptious nature and extensive summits, all being the characteristics of Mesas and buttes which are found extensively in the Deccan trap region, several hills are themselves the natural forts. Ramchandrapant Amātya, the author of the famous treatise Ajñāpatra, says, 'the forts can be built on every hill. Several hills are very high and therefore after locating purticular spot, the fort should be erected.'[11]

The hills of Western ghats of the Deccan possess two important features of the forts i.e. scarp and the extensive summits on top to facilitate the construction required for forts. Further the basalt formation, coupled with the characteristic joints, facilitated the excavations of caves during the early historic and later periods. The problem of storing water and grains was solved by the early fort builders by excavating the cisterns and the caves. We find that the earlier forts like Shivnerī were provided with numerous cisterns and caves. If the natural scarp was found irregular and that could facilitate the easy ascent, it was made inaccessible by chiselling. The smooth and lofty scarp round the base of the fort Jīvadhan (dist. Poona) is the best example of it.

Like western ghats, the peculiar features of the Deccan trap are found in the ranges of Desh. So it is obvious that these ranges rendered favourable sites for building the hill forts.

The physiographic features of the Māvaḷ region are characterised by hills rising one above the other, step by step. These peculiar features made the hill forts of this region of special interest. The hills of Māvaḷ are distinguished due to formation of flat and spacious terraces and at places with precipitous sites. Therefore we find that the forts could secure the additional bulwarks of redoubts or 'Māchīs'. The Budhalā and Zunzār Māchīs of Torṇā, Padmāvatī, Suveḷā and Saṅjīvanī Māchīs of Rājgaḍ, Shrīvardhan and Manaranjan, sub-forts of Rājmāchī, and the scorpions sting or 'vinchookātā' of Lohagaḍ, are excellent specimen of the bulwarks.

Use of basalt for buildings

In case of hill forts of the Deccan we find that a number of cells have been excavated in the natural rock for various purposes including storing of grains, ammunition, etc. The rock-cut cells remained usually concealed and thus could not be seen easily by the enemy.

For constructing the fortifications, the easily available and handy blocks of basalt were used. As a matter of fact the basaltic stone is not favourite building material due to its subdued and dull colour.[12] But the basalts furnish an easily workable and durable stone of great strength.[13] The huge blocks of these basaltic rock were used for construction of the curtain walls at every fort. Among many varieties of basalt, it is the compact or massive well jointed basalt that seems to have been extensively used for constructions. Other varieties like amygdaloidal and porphyrilic basalts weather easily and hence are not as suitable as compact basalt for construction work.

There is an evidence of construction of numerous buildings in basaltic stone on Rāyagaḍ fort where the extensive summit afforded rendered the tremendous scope for carrying out construction. Here we find that the pits formed as a result of quarring the stone for construction were utilised as cisterns. (Fig. 17a).

Rainfall

The rains in Deccan are largely confined to a five months period, from June to October. The crest zone of Sahyādri is the belt of the heaviest rainfall. The large part of Ghāṭmāthā receive maximum rainfall. It is obvious that it was very difficult and tedious to conduct military operations in the Ghāṭmāthā region during the Monsoons. The forts on Ghatmatha were practically guarded by nature in rainy season. Towards east of crestline of the Sahyādri, there is a sharp fall in the amount of rainfall. Nasik, Junnar, Wai and Karad are in rainshadow of the Sahyādri and receive scanty rains.[14] Further the driest parts lie in a north south belt. Owing to this peculiarity, the military operations and the sieges of forts in this region were possible to some extent. The average rainfall was 100" in the interior of south Konkan and thus the forts in this territory were naturally safeguarded during the rainy season. In Konkan, the rivers and rivulets are flooded during the Monsoon. In the middle ages these rivers often obstructed the movements of enemy troops.

Forests

The Western slopes of the Sahyadri are well-wooded with wet deciduous forests. The valley slopes and Ghat terraces allow the growth of thickets, generally of teak.[15] But the scarps where the basalt makes a massive appearance is totally ? unfadable, for the growth of any kind of vegetations. Owing to these peculiar aspects, we find that the hills of Western ghats are well-wooded, particularly at their foot. The valleys below the hills are also covered by high trees or tangled with low impervious brushwood. The forts erected on these hills naturally secured the thick forests growing below. ? In medieval period, these forests, with great striking, arrested the activities of enemy troops. Further the rivulets flowing in this region are frequently swollen into impassable torrents during the rainy season. So it is not necessary to explain that the military operations were extremly tedious in this region, particularly during the Monsoon.

From the foregoing discussion, we find that the forests served as fortifications to forts, or in other words, the forests themselves were the forts. In strategy, the importance of forests was well recognised in ancient and medieval India.[16] The forts erected on the western ghats secured the maximum advantages of impregnability. Like the scarp above, the forests below made the forts practically impregnable.

References (Notes)

1. During the royal period of the Maratha history the area was not compact, but the large pockets of enemy territory annexed by Shivaji were included in it. While describing sieges etc; these parts are also taken into account as and when necessary.

2. 'The Narabadā is flanked to the South by a series of scarped plateaus, generally at 2000 - 3000 ft. In the west the Satpuras (Seven Folds) proper are simply a steep - sided Deccan Lava block, Sinking between Burhanpur and Khandawa to 1200 ft. in the gap followed by the main Bombay - Agra railway and guarded by the great hill-fort of Asirgarh.'

   - Spate : India and Pakistan,
   A General and Regional
   Geography, P. 534.

3. In Marathi, the word Māval means the act of sunsetting. So it is explained by some reputed scholars that the Māval territory means the land of sunset.

   For want of contemporary record, it is very difficult to identify the names of Māvals that generally end with the words, 'Ner', 'Khore' and 'Māval'. The late historian Rajwade furnishes the lists of Māvals and Khores situated in Poona and Shirval jurisdictions. They are: 1. Andhra, 2. Pavan; 3. Ghotan, 4. Nāne, 5. Gunjan, 6. Hiradas, all known as Māvals and 1. Muse, 2. Paud; 3. Bhor, 4. Velvanda, 5. Muthe, 6. Shivatar all the Khores. Saradesai classifies twelve Māvals under Poona and some Ners under Junnar. They are: 1. Rohide, 2. Velwanda, 3. Muse, 4. Muthe, 5. Jor, 6. Kānada, 7. Shivatar, 8. Murum, 9. Paud, 10. Gunjan, 11. Bhor, 12. Pavan - all under Poona; and 1. Shivner, 2. Bhimner, 3. Ghodner, 4. Pārner, etc. all under Junnar. The elaborate lists prepared by Rajwade and Sardesai are incomplete and are not sufficient to identify the exact locations of Mavals. But from these lists it can be said that all these Māvals, although some of them known as Khores and Ners, were the valleys of the rivers and rivulets flowing in the Western belt of Poona district

4. Fully described in chapter IV.

5. The fort of Daulatābād is the best example of developed hill-fort architecture. About it Sidney Toy observes," In its design, its plan, and the general disposition of its defences, this powerful fortification is essentially Hindu in character and belongs to the period of the Yadava occupation, in all respects it agrees with Hindu work elsewhere, as at Ginjee and Chitor. No doubt, the smooth and lofty scarping round the base of the citadel relates to a much earlier period,

for it is in tradition of the skilled labours performed by the workmen at Ellora excavations, only a few miles away.

- Toy - Sidney -
The strongholds of India,
P. 34.

6.The same important was clearly demonstrated in the police action of 1948 against the then Hyderabad state.

- ~~Arunachallam and~~ Joshi and Aruṇachallam
- Maharashtra.
A Regional study -
P. 95.

7. Deshpande C.D.; Western India,
A Regional study, P. 133.

8. Ibid. - P. 136.

9. Wadia : Geology of India P.12.

10. Ibid : P. 12.

11. Khare G.H. and Bhide (ed.) - Ajñapatra - P. 68.

12. Wadia : Op. Cit. P. 201.

13. Wadia : Op. Cit. P. 293.

14. Singh R.L. (ed.) - India,
A Regional Geography
P. 702.

15. Maharashtra : A Regional study - P.134.

16. Fully described in chapter IV.

Chapter IV

Forts in the Age of Shivaji

'Indeed, the late master (Shivaji) carved the kingdom only with the help of forts,' 'Says Ramachandrapant Amatya. Forts undoubtedly played an important role in the history of the Marathas. In his life-time Shivaji created a net-work of forts throughout the Deccan and tried to overcome the Ādilshāhī and Mughals. As a matter of fact the Bahāmanīs and even Mughals also were ~~the~~ great fort-builders. We have already seen how the Bahāmanīs introduced several elements in the fort architecture of the Deccan. A study of forts built by Shivaji himself will reveal the fact that he too also copied the several features of so called Bahāmanī fort architecture. It would be interesting to know how Shivaji utilised forts for realizing his goal of founding a Swarāj. Shivaji was a great fort-builder. He renovated and repaired many old forts and also constructed new ones at strategic points. His efficient administration of forts must have helped him in wielding this weapon with success in giving effect to his policy of political expansion.

In the medieval warfare the importance of hill forts was reduced to a great extent. Even the Bahāmanī kings treated several hill forts meerely as out-posts. Shivaji created a network of these negelcted forts and astonished his enemies. It was with the assistance of hill forts that he could either reduce or check his enemies. It is proposed to discuss here how Shivaji succeeded in creating chains of forts which not only helped him in founding the Maratha power on a sound footing, but also defending it from its enemies. With a view to understanding the significance of forts in the age of Shivaji, it is necessary to know the various aspects of medieval forts in the Deccan.

Enumeration of forts

Sabhāsad furnishes the list of 240 forts which were in the possession of Shivaji. Out of them, according to him, 50 forts were of Pre-Shivaji period, 111 forts were constructed by Shivaji and the remaining 70 forts were from Karnatak provinces.[2] Chiṭṇīs furnishes a list of 317 forts,[3] whereas the author of 'Śhivadigvijaya' provides a list of 361 forts.[4] For want of absolutely contemporary records, it is hardly possible to enumerate the forts controlled by Shivaji. Moreover, Shivaji never constructed a large number of forts, as Sabhāsad says.

He constructed some forts like Pratāpgaḍ, Bhuśaṇagaḍ, Makarandgaḍ, Sindhudurg, etc. He carried out major repairs to a number of forts like Sinhagaḍ, Purandar, Vishāḷgaḍ, Rājgaḍ, Toraṇā, Lohagad, etc.[5] It may be noted that Shivaji renamed several forts after their acquisition. Sabhasad counts some pre-Shivaji forts like Toraṇā, Rudramaḷ, Maṇḍaṇgaḍ in the list of 111 strongholds constructed by Shivaji. Some of the forts mentioned by Sabhāsad and Chitnis remain still unidentified. It is therefore necessary to use these lists of forts supplied by the chroniclers with caution. With the help of contemporary and nearly contemporary records, an attempt has been made to find out the forts in the possession of Shivaji at the time of his death. (~~Appendix-A~~ List of Forts). It appears that 200 forts were possessed by Shivaji.

The list of forts under Shivaji does not exhaust the forts in the Deccan, as many of them were in the possession of the Mughals or Deccani powers. Chiṭṇīs includes fort like Shivnerī, which was possessed by the Mughals, in the list of Maratha forts.[6] It seems that Chitnis provides us with the list of all prominent hill forts during the times of Shivaji. But he is silent about the ground forts like Ahmadnagar, Sholapur, etc. In view of these facts, it can be said that in the age of Shivaji, there were about 350 forts playing big or small roles in the history of the Deccan.

Classification of forts -

Parmānand classifies the forts into four types viz. 1. Girī durg (Hill fort), 2. Jaladurg (Marine fort), 3. Sthaladurg (Ground fort) and 4. Vanadurg (Forest fort).[7] Śivatattva Ratnākar' classifies forts under eight types viz. 1. Mruṇmayī,[8] 2. Jalātmikā,[9] 3.Gramkoṭ,[10] 4. Gavar,[11] 5. Girī Koṭ,[12] 6. Bhatavara,[13] 7. Vakrabhūmī[14] and 8. Visham.[15] In the Ākāśabhairavkalp, again, we get eight types, viz. 1. Girīdurg, 2. Vanadurg, 3. Vrākshdurg, 4. Jaladurg, 5. Pank durg,[16] 6. Nābhi or Misradurg,[17] 7. Naradurg,[18] and 8. Kośṭadurg.[19] The author of Ākāsabhairavkalp further provides eight varieties of Girīdurgās or hill forts. They are 1. Bhadra,2.Atibhadra, 3. Chandra, 4. Ardhachandra. 5. Nābh. 6. Sunābh. 7.Ruchir and 8. Vardhamān.[20] It seems that minute details of physical freatures like crest, summit, scarp, etc. might have been considered while describing these sub-types.

Although Śivatattva Ratnākar' and 'Akāsabhairavkalp' furnish the eight types of forts, we find four main heads viz. 1. Giridurg 2. Jaladurg or Janjirā, 3. Sthaladurg or Koṭa and 4. Vanadurg, which may cover all the varieties given above.

A chart given below will show how four main heads cover all the varieties given in the works composed during the 16th and 17th centuries

Type of fort	Varieties given in texts		
	Ākāśabhairav-kalp	Śivatattva-Ratnākar	Śiva-bharata
1. Hill fort	Girīdurg	Girīkot))Visham	Girīdurg
2. Ground fort	Pankdurg Nābhidurg Kostadurg	Mrinmayi) Graṁkot Vakra-bhumi	Sthala-durg
3. Marine fort	Jaladurg	Jalātmikā	Jaladurg
4. Forest fort	Vanadurg Vārksha-durg	Gavardurg	Vanadurg
	Naradurg	Bhatavara (?)	

Naradurg = A system of protection by keeping forces all round the city.

Forest forts

Of four major types given above only forest forts were completely the natural forts. From strategic point of view, these forts(?) played an important part during the period of Vijayanagar empire. The emperors like Krishṇadeva Rāya encouraged the growth of forests on the frontiers of the territory.[21]

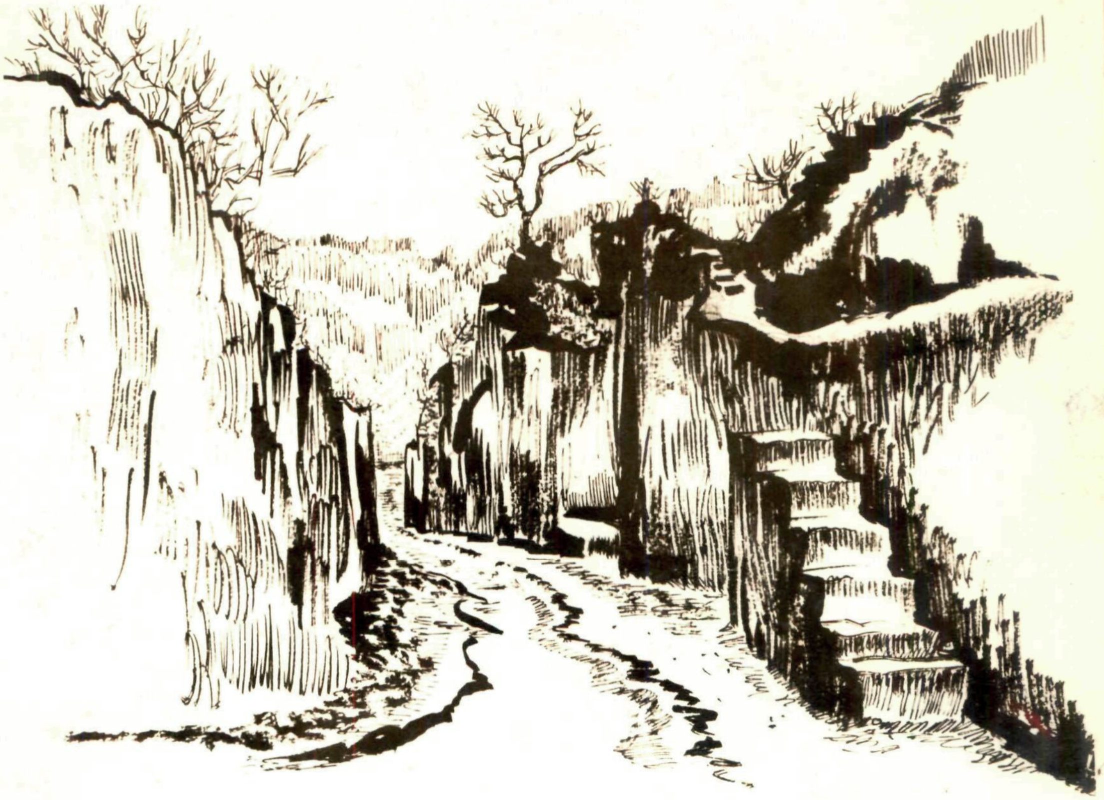
So far as the western ghats are concerned the vegetation is mainly tropical semi-evergreen. On the residual hills forest is patchy and open on hill-tops and ridges. 'In sheltered valleys trees generally grow close together to form a coherent forest canopy.'[22] Such canopy served as forest fort on certain occasions during the medieval period. The Maratha leaders could convert these forests into forts and assault the enemy intending to enter into their territory. We have good examples of the forest forts in the medieval history of the Deccan.

In 1453, Khalaf Malik-ut-Tujār, a Bahāmanī officer, undertook the expendition of the south Konkan, a part belonging to the King of Sangmeśvara. In this expedition one Shirke deceived the Muslim troops astonoshingly and brought them at a very strategic place surrounded by thick forests. As it was pre-planned, the troops of Sangameśvara that already concealed in forest on the way to Kheḷanā (Viśāḷgad) started the massacre in which even Malik-ut-Tujār was slain.[23]

When Afzalkhan undertook the expedition against Shivaji in 1659, Shivaji selected the fort of Pratāpgaḍ to offer fight to the Khan. The peculiar position of this fort was most favourable to Shivaji. The surrounding territory, on east upto Wāi, on north-east upto Jāvaḷī and Dhavalā ghāt and on South upto Chatur, is covered even now with a thick forest. It was possible for Shivaji to conceal his army in the Jungle of Jāvaḷī. Afzais troops faced great difficulty while conducting the military operations.[24] In the ~~last~~ end, Shivaji succeeded ~~to~~ in overcom~~e~~ing Afzalkhan.

In 1661, Kār Talab Khan undertook the campaign of north Konkan according to the instructions of Shaista Khan. He started from Poona and reached Umberkhiṇḍ by descending the western ghats without any opposition from the Maratha side. It may be noted that his army was not attacked while it was passing through the area of the forts of Tung, Tikonā and Lohagad.[25] The Mughal army was all of sudden encompassed by the Marathas amidst the thick forest in the Umber pass. The Mughals were compelled to surrender.[26]

During the period under discussion, the trees on forts were supposed as important means for the defence purposes. We learn from Ajñāpatra that the defence of forts depends on the trees grown up on the

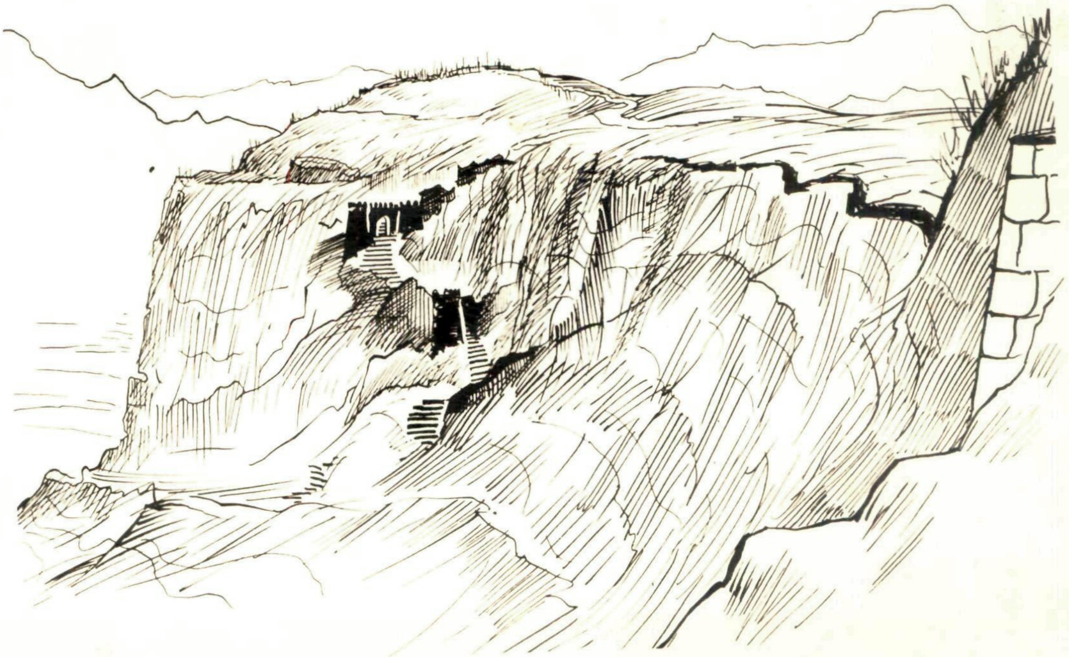


BATTLEMENTS TO GORGE. VISHALGAD

a

b

KALYAN GATE, SINHAGAD



belt of hill (Kamargā)[27]. Amātya hints that all the trees on fort, useful or not, should be preserved.[28]

Ground forts

In the Rājyavyavahār-Kośa, composed during the period of Shivaji - probably at the time of his coronation, three kinds of forts viz. Giri durg (hill fort), Koṭ (ground fort) and Janjirā (Marine fort) have been mentioned.[29] All these three types were known to the Mughals. But the middle ages witnessed the growth of a large number of fortified cities on the plains. The Bahāmanis were great fort builders and several fortified cities like Gulburga, Bidar, Bijapur, Sholapur, etc. developed during that period.

Shivaji paid little attention towards the ground forts. His earlier activities were related to Ghatmatha and Konkan province which rendered him excellent sites for building hill forts. The forts like Chākaṇ and Kalyāṇ were strategically important ground forts and the Mughals tried to keep them under their thumb in the teeth of Maratha opposition. But such forts were very rare in the hilly region of western Maharashtra. Shivaji well recognised the importance of fort of Chākaṇ which was the guarding fort of Poona and Junnar. In his earlier activities he acquired it with little attempts but Shaista

Khan recovered it in 1660.

As regards the other ground forts, we find that most of them were in the Karnatak region. It is difficult to ascertain precisely the total number of ground forts held by Shivaji. Neither Sabhasad nor Chitnis gives accurate figures. Only in Chitragupta Bakhar, it is mentioned that 108 ground forts were in the possession of Shivaji.[30] But this figure mentioned in the Bakhar of a later period, seems to be an inflated one as from other more contemporary sources one can conclude that not more than fifty ground forts were held by Shivaji.

Karnatak forts

In his Karantak expedition Shivaji captured forts like Vellore, Kopal, Balawāḍ (Belwāḍī) and Jinjī.[31] Sabhāsad says that Shivaji erected 100 forts throughout the Karnatak region.[32] But this number does not seem to be correct as he himself states elsewhere that 79 forts were possessed by Shivaji in Karnatak provinces.[33] An interesting account of the Vellore fort is given by Sabhāsad. Shivaji besieged the fort of Vellore in May 1677. About this fort Sabhāsad says,

> 'There is no such fort in existence on the face of Earth. It has a deep wet ditch and ten

> thousand crocodiles are swarming in the water of ditch. The wall-walks are wide enough for two carts to be driven abreast. It has four lines of battlements'.[34]

With a view to reducing this fort Shivaji fortified two neighbouring hills and named them as Sājarā and Gojarā. Bat~~a~~teries were mounted on these hills for bombardment during the period of siege, and the Vellore fort was captured in July, 1678 by the Marathas. Before that in the month of May, 1677 Jinji was brought under the Maratha control. Here it may be noted that Shivaji wanted to form the third line of defence by capturing the forts in the Karnatak region. We learn from Factory Records of st. George how Shivaji undertook the project of strengthening the forts. In one of his letters addressed to the English Governor of Madras, Shivaji writes,

6'In the Karnatak country.... I intend to build new works in several forts and castles. You may likely have with you such men as know how to make great carriages for guns and how to contrive mines. We have need of such men at present, especially those that know how to make mines and to blow up stone walls.'[35]

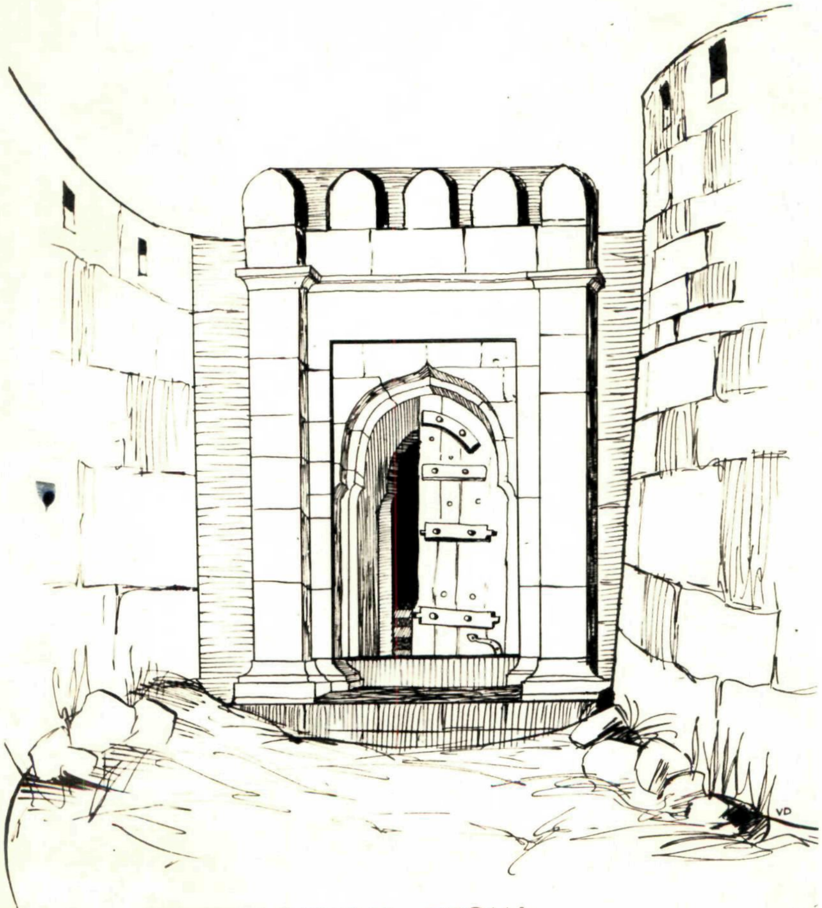
An interesting account of Shivaji's project is provided by the Jesuit priest Andre Freire in his letter of 1678 -

'After the capture of the kingdom of Ginja (Jinjī) - he (Shivaji) started to fortify himself for the future - To attend this he strongly fortified the main fort of Ginja (Jinjī), though its situation is naturally impregnable. He pulled down great parts of its walls and built them again with new bastions so tactically constructed that it looks like a fortress built rather by Europeans than by Indians. Thus he fortified himself in the rest of his kingdom, by destroying some forts which he considered of no use and by building new ones both in the plain and on the hills.'[36]

We learn from the same account that Shivaji followed European methods while executing the work of strengthening the forts.[37] So far as Karnatak districts are concerned, Shivaji, it seems, never depended totally on hill forts. Forts like Vellore, Jinji were important from strategic point of view. Although most of these forts were ground forts, Shivaji strengthened them by providing additional bulworks. Here he adopted European methods and made these forts more impregnable.

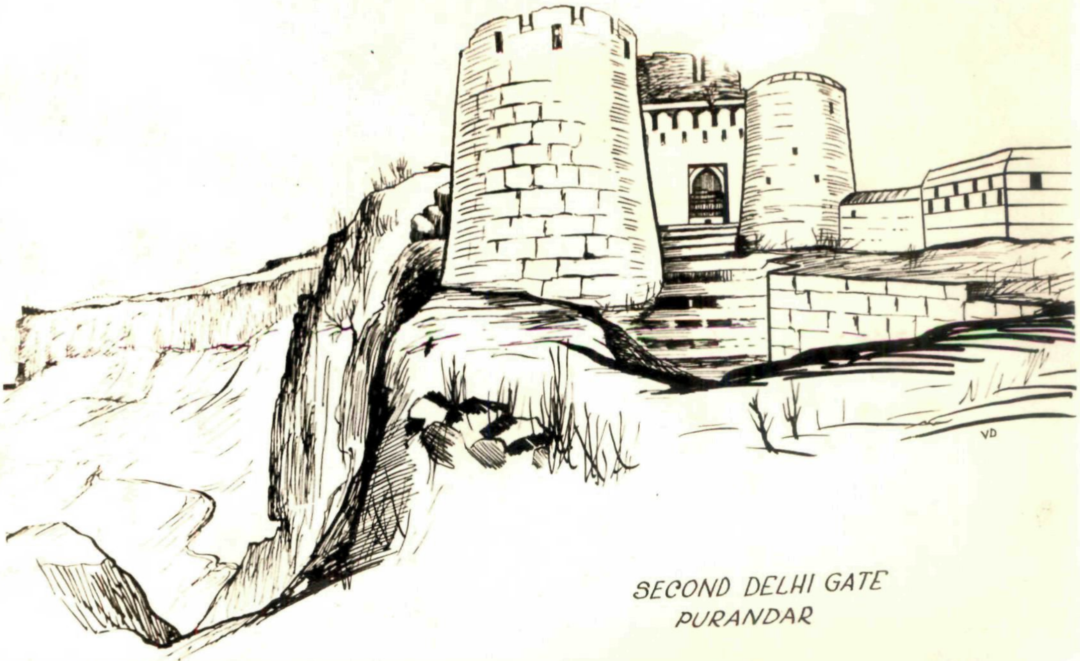
Fig. 12

a



KOTHI DARWAJA - TORNA

b



SECOND DELHI GATE
PURANDAR

The geographical features of Karnatak province were different from those of Western ghats. Several ground forts were required here to ensure the protection. While forming the third chain of forts, Shivaji considered the importance of ground forts and strengthened them.

Shivaji aimed at expanding his territory in the south, which might serve him to secure a firm basis for his newly created Maratha state. He must have prudently planned the conquest of South, as a place of resort, if the Mughals pounced on his kingdom in the Deccan. The network of forts in the Karnatak region would have served as a bulwark against the Mughal menace. This view must have prevailed on him in developing many ground forts in the Karnatak region.

Gadhīs

Gadhī like a castle was a dwelling place with defensive outworks. In the days of Bahāmanīs, the 'gadhīs' were the mansions of the Jāgirdārs which include pātils, Kulkarṇīs and Deshmukhs. These local Jāgirdārs (or Mirāsdārs) were the influential personalities in the states of Ādilshāhī and Nizāmshāhī. They were allowed to collect revenue dues from their respective jurisdictions. But it seems that they used to surrender very little amount to the central treasury of the state[38] Soemtimes they used to pay only 200 or 300 Hons for a village yielding 1000 or 2000 Hons as revenue.[39] As such these Jāgirdārs became very rich and sometimes caused trouble to the ryots. They nominally depended on their state, otherwise used to behave independently. They not only built the gadhis but employed their own troops.[40] They were thus thwarting the purpose of Shivaji by opposing him in his schemes of expansion.

In the age of Shivaji some Sardārs like Mores, who were in the service of the Muslims created hindrances in the way of Shivaji. They generally behaved independently as they were having their own troops and gadhis well protected. When Shivaji acquired these areas, he took severe measures against the turbulent Sardars. He not only confiscated their Saranjams but also dismantled their fortresses which would have endangered his position in the Deccan. Shivaji adopted the policy of keeping all the forts and fortresses under his direct control. He, therefore, did not allow the construction of private mansions. According to Sabhāsad, Shivaji dismantled the gadhis of the several Jāgirdārs, fixed their income and forced them to yield to him.[41] Further he warned that the local Jāgirdārs should not build the mansions having bastions;

they should construct merely residential quarters.[42] Amātya warns that there should not at all be a strongly built house at the bottom of a fort, or stone enclosure round any house.[43]

But Shivaji's policy was slightly altered to meet the new situation during the period of Rajaram, who gave Saranjāms to the Maratha chieftains and induced them to all sorts of adventures. This explains the growth of gadhīs in the Maratha country after the death of Shivaji.

Hill forts.

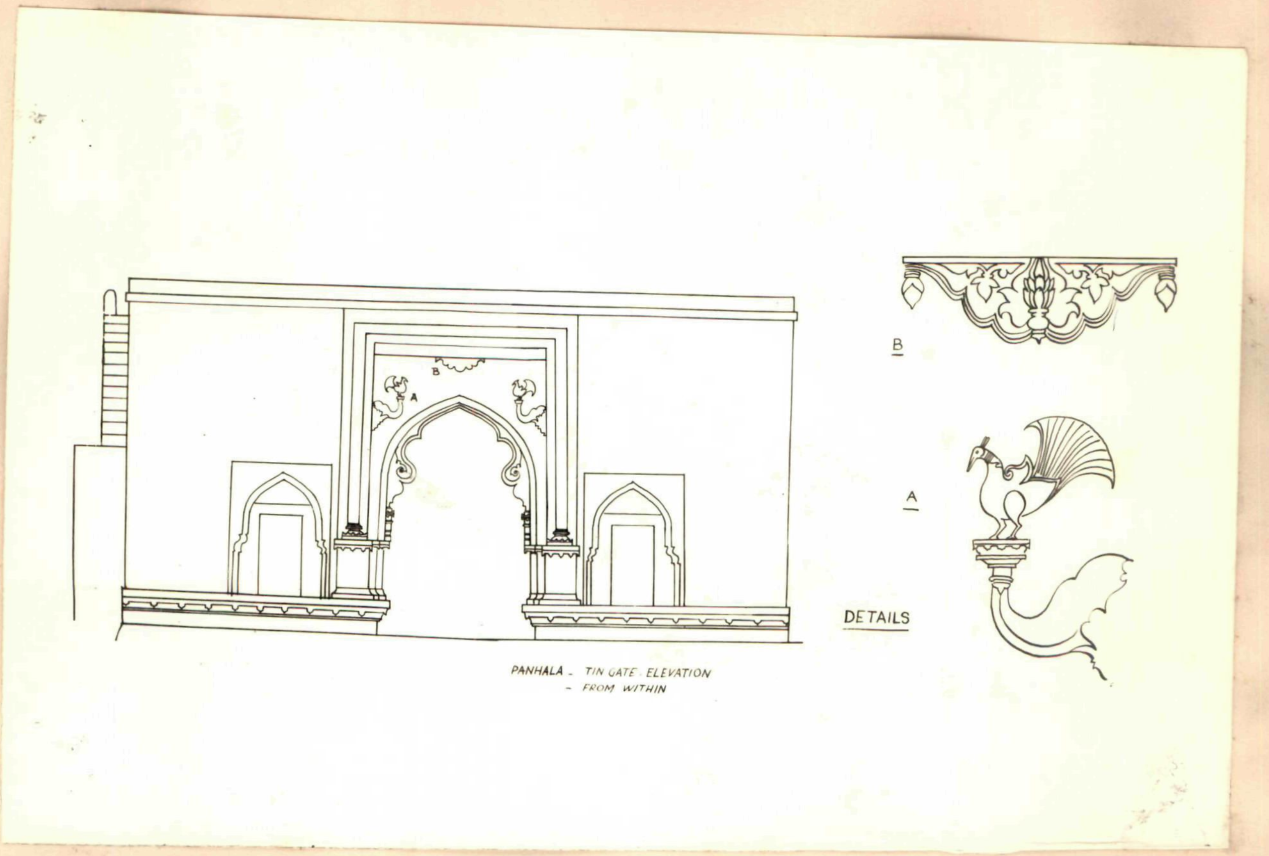
As we have already seen that the hill forts of the Deccan were not put to their proper use during the later Bahāmanī period, and it was left to Shivaji to exploit them fully for realising his ambition. In his earlier activities Shivaji realised the strategic importance of these forts and launched a movement of capturing them as early as 1645. He first captured Koṇḍānā (Sinhgad) which was followed by the caputre of Purandar, Rājgad, Toraṇā, etc. As his resources were limited then he had to seek the co-operation of nature in defending his territory. Hill forts, thus, became of utmost importance to him.

Hill forts - Key to Swarāj

In the earlier years of his career, Shivaji framed his programme of founding the Swarāj in the teeth of great opposition of Bijapur. While doing so, he had before him the experiences gained by his father Shahaji who struggled a lot for the protection of Ahmadnagar kingdom against the Mughals. The career of Shahaji must have acted as a guide to Shivaji, who had to face a good deal of opposition from the neighbouring Muslim powers. The greatest obstacle in his path of independence was the Ādilshāhī kingdom of Bijapur. While turning the pages of the career of his father, Shivaji must have learned the importance of hill forts as centres of protection to the kingdom. Because we know that while defending the Nizāmshāhī kingdom against the Mughals, Shahaji shifed his centres of activities to the hill forts like Pemgirī and Māhulī. These experiences of strategy of his father must have enabled Shivaji in formulating his policy against the Adilshāhī with the help of numerous hill forts which were neglected by the Bijapur rulers.

In the Śivabhārata, Sonopant Dabīr, in the course of discussion on diplomacy, reminds Shivaji of the importance of inaccessible forts. In the last eight

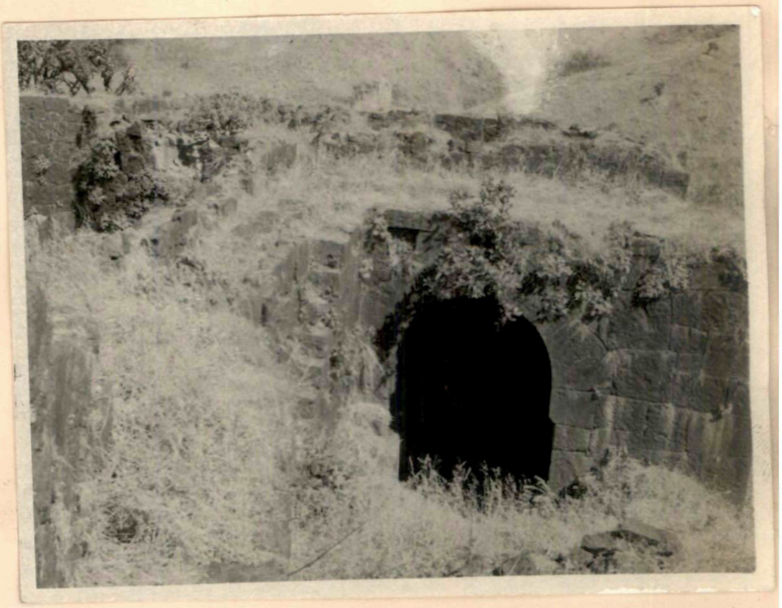
Fig. 13


B
A
B
A
DETAILS

PANHALA - TIN GATE ELEVATION
- FROM WITHIN

a

Pl. IV



b

Gate, Toraṇā

a

Teen Darwája Panhālā

stanzas of Canto sixteen, Sonapant explains the importance of impregnable hill forts. He advises Shivaji to conquer the world by resorting to inaccessible forts.[44] Further he advises him to strengthen the forts and thus make them inaccessible.[45]

Thus Shivaji strengthened his position in the Deccan with the help of hill forts. Amatya rightly observes,

'This kingdom was created by the late revered and exalted Majesty with the possession of forts (gads) alone.'[46]

Amātya's reference to 'gaḍ' is obviously to hill forts of the Deccan.

Location of hill forts

Most of the forts are generally found located on the trade routes. The main purpose of a fort is to protect the political and economic interests of areas which fall under its sphere of influence.

The association of the Buddhist caves with some of these forts proves their early existence. In the middle ages the old trade routes were converted into military routes. Consequently these hill forts played an important part in commanding the military routes. (Fig.10b)

Ghāts	...	Forts
Nāṇā	...	Jhādgaḍ
Kolumbā	...	Kotaligaḍ
Kusūr	...	Bhivagad Dhāk
Pimpari	...	Sudhāgaḍ
Kāvalyā	...	Māngad
Shevatyā	...	Lingānā
Kāmthā	...	Kāngori
Pār	...	Pratāpgaḍ
Ambavali	...	Rasāḷgaḍ
Kumbhārli	...	Jangali Jayagaḍ
Mala	...	Bhavāngaḍ
~~S.~~ South Tivarā	...	Prachitgaḍ
Kundi	...	Maimatgaḍ
Viśāḷgaḍ	...	Viśālgaḍ, Māchāḷ
Phonde	...	Śivgaḍ
Nardavā	...	Bahiravgaḍ

All these forts and others too were mostly maintained by the Marathas. When Shivaji undertook the work of forming the chains of forts, he planned to construct some new forts on military ways. Accordingly, he constructed the fort of Pratāpgad on the Pārghāt (Fig. 10b) in order to protect the territory of Jāwaḷi. We also find that the fort of Makarandgad was constructed by Shivaji for commanding the Hatlot ghat.(~~Fig. 10 b~~).

Some forts were located since early period to command the river valleys -

Anjanvel	...	The Vaśiśtī river
Arnālā	...	The Vaitaraṇā "
Ambolgaḍ	...	The Rājāpūr "
Belāpurgaḍ	...	The Panvel "
Jayagad	...	The Sangameshwar "
Khārepātan)) Vijaydurg)	...	The Nāgothān "
Trimbak	...	The Godāvarī "
Bhudhargaḍ	...	The Vedgangā "
Ratangad	...	The Pravarā "
Hariśachandragaḍ	...	The Muḷā "
Karnālā	...	The Panvel-Aptā "

It may be noted that some of the forts mentioned above are the marine forts. During the period of the Bahāmanīs and Mughals, the rivers like Bhīmā were used prominently for military communications.

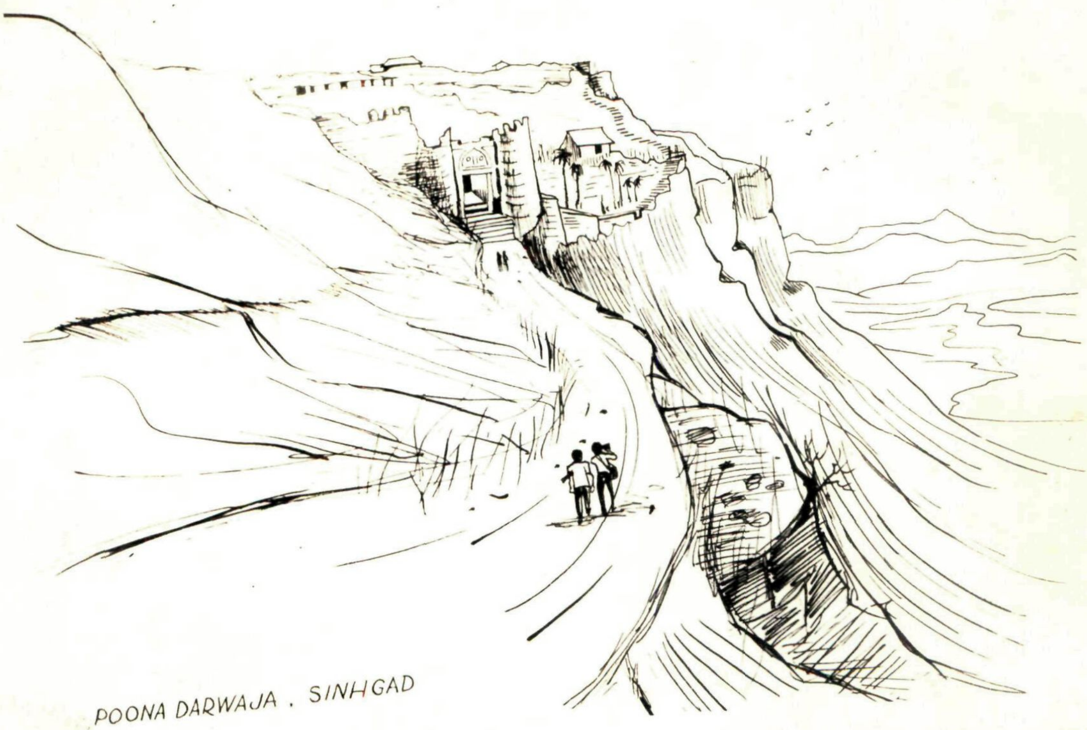
Shivaji reconstructed the fort of Rājgad (Murumadeo) and made it his capital. This fort was useful to command the river Velvaṇḍī. He also constructed the fort Sajjangad on the bank of Urmodī river in the Satara district.

A network of hill forts

We have already seen that several hill forts were erected on ghāṭmāthā and on the ranges of Sahyādri. (Fig. 10 a). All these hill forts were more or less impregnable owing to their peculiar geogrophical and geological background. In general, all of them were difficult to ascend as thair upper slopes rise steeper and steeper to the summits. They were having the advantage of the natural defences of escarpments around them. Sometimes the artificial scarps were made to prevent easy access to the summits. For the same reason, the fort walls were also constructed along the crest of scarps. Several hill forts were having the inner hill-spires called the upper forts or 'Bāle Killās'. Almost all these hill forts had the rock-cut cells for storing the grains and ammunition, and the rock-cut cisterns for storing water. The dates of all these forts vary
? from the 1st century B.C.(?) (Maṇḍangad...dist.Ratnagiri) to the 12th century A.D. (Devgiri - dist. Aurangabad).

From this discussion it is obvious that a net-work of hill forts was in existence before the rise of Shivaji.

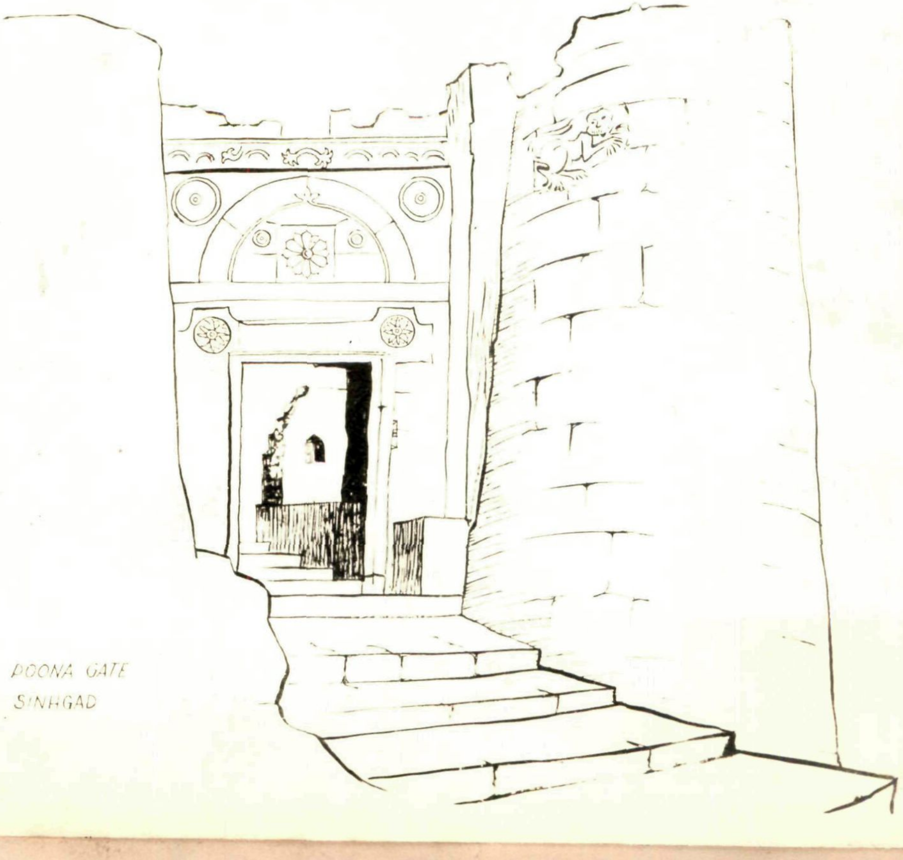
Fig. 14



POONA DARWAJA . SINHGAD

a

b



POONA GATE
SINHGAD

The hilly country and the hill forts were the proper places for the movements of independence. In the first half of the seventeenth century, Shivaji accomplished the need and carved his Swaraj in the teeth of great opposition of the Mughals, Bijapur, Abyssinians (Siddis) and Portuguese.

In his activities, Shivaji captured several hill forts and formed his first defence line. While doing so, he reconstructed the forts like Rājgaḍ, Lohagad (Poona) Lingāṇā, Rāyagad (Kolaba), Bhudhargaḍ (Kolhapur) etc. He also constructed, according to Marathi chroniclers some new forts like Pratāpgaḍ, Makarandgaḍ, Machhindragaḍ, Vardhangaḍ (Sātārā dist); Yashawantgaḍ, Pālagaḍ, Mahipatgaḍ (Ratnāgiri dist); Mānagad (Kolaba), etc. at strategically important places. In the days of Shivaji, the importance of hill forts was raised to a great extent and a special science on hill fort was developed. In his treatise 'Ajñāpatra', Amatya furnishes the features of this developed science.

Fort Architecture

(I) Selection of Site

'Forts are the chief protection of a kingdom. They should be built all over the country after selecting the proper site,' Says Amātya.[47] For building the fort, a hill of considerable height with most difficult access was generally selcted. Another important factory regarding the selection of site is that the site should be important from strategic point of view. According to Amatya, there are several classes of forts which can be built on every mountain. Several mountains are very great. After locating some point on the mountain, it should be fortified.[48]

Even before the rise of Shivaji, we find that several hills were treated as forts. The word 'giri' itself shows the natural form of hill fort. One great advantage in selecting a site on the summit of a hill was that the forts located in a particular jurisdiction were generally visible from one another. The forts acted as sentinels of one another. By putting on fire it was possible to communicate signals from one fort to another in the time of emergency.

Amatya emphsizes, 'there should not be a higher point near the fort amongst the surrounding hills. If there is one, it should be brought under the control of the fort by pulling it down with the use of mines. If it cannot be pulled down with the help of mines, then that Place should not be left uncontrolled but should be built and strengthened.'[49]

We find several pairs of forts viz. Lohagad - Visāpur, Ankāī - Tankāī, Purandar - Vajragaḍ, Chandan - Vandan, Alang - Kurang, Aundhā - Pattā and so on. All these pairs will show how the adjacent hills were brought under the control of the main forts, by converting them into sub-forts. It may also be noted here that a hill surrounded by a group of mounts was generally selected for building the fort. The series of mounts, situated at a considerable distances from the main fort, were most useful from strategic point of view. These series could form a thick curtain all around the fort. We find the forts Rājgaḍ, Rāyāgaḍ, Viśāḷgaḍ, etc., were surrounded by such curtains of mounts. Amatya says, 'there should not be a higher point near the fort amongst the surrounding hills'.[50]

a Amatya insists that the fort should be constructed after locating suitable point on a mountain. Further he states that if any fort is situated on a hill and if it has a plain land in front of gate or fortification, it may be called a ground fort.[51] If we agree with this, we should classify the forts like Devgirī (Daulatābād), Ashirgaḍ, Jinjī as ground forts. The fort of Redī (Yashawantgaḍ) belonging to Shivaji stands on a hill. Here a surrounding plain is towards its fortification.

To the eastern side, the creek was used as a ditch. This fort, if we agree with Amātya, should be treated as a ground fort.

(II) Ascent -

Amatya says, 'the approaches to the fort should not be easy of access. If they are easy of access, they should be destroyed, and by growing a thicket of trees such paths should be constructed as it would make very difficult for a foreign army to approach any other side.'[52] So far as the hill forts are concerned, we find a zigzag path going steeper and steeper up to the foot of the scarp. Sometimes while climbing up we find a steep rock cut into narrow steps. If a fort is important, these steps are found of considerable width ~~of~~ in both types- rock-cut, as well as masonry. While ascending the forts like Rājgaḍ, Rāyagaḍ, etc. we find such flights of steps. Sometimes instead of steps, the nitches are cut into rock for support while ascending the fort. We find such nitches while climbing up the fort of Rājgaḍ from Gunjan side. Another example of rock-cut nitches made for climbing up is found in case of Harish fort (Nasik dist.).

It seems that several measures were used to make the approach to the fort inaccessible. In case of

Bahulā fort (Nasik dist.), we find that one difficult path with steep steps goes up to the foot of the fort. Thereafter one has to climb the perpendicular height of 3.65 ms. by means of a ladder to step into the gate of the fort. The more difficult ascent is found in the case of the Bahirugad fort (Thana dist.). Here the ascent is by a very steep staircase hewn out of rock. A wooden ladder is necessary to climb the precipice of this fort. Forts like Sumārgaḍ and Prachītgaḍ (Ratnāgiri dist.) are also accessible by means of a ladder.

Sometimes subterranean passages were made to reach the main entrance of the fort. At Daulatābād fort, the astonishing underground tunnel was the only way to enter into the fort. In case of Dhodap fort (Nasik dist.), a complete hidden passage hewn in the rock was made to attain the entrance of the fort. The ascent to the Hātgaḍ fort (Nasik dist.) was also through a narrow passage cut in the rock. In case of Rājdair or Dehrā fort (Dhulia dist.), we find the entrance like that of Daulatābād except that it is open at the top instead of being altogether underground. The access to the Aśerī fort (Thana dist.) has been described as, 'the passes through which alone the top could be reached were narrow crevices - opened by time and nature.'[53]

It may be noted that these passages were often battlemented. In the subterranean passage of Daulātābad fort, several nitches were left to occupy them by archers.

(III) Gorge -

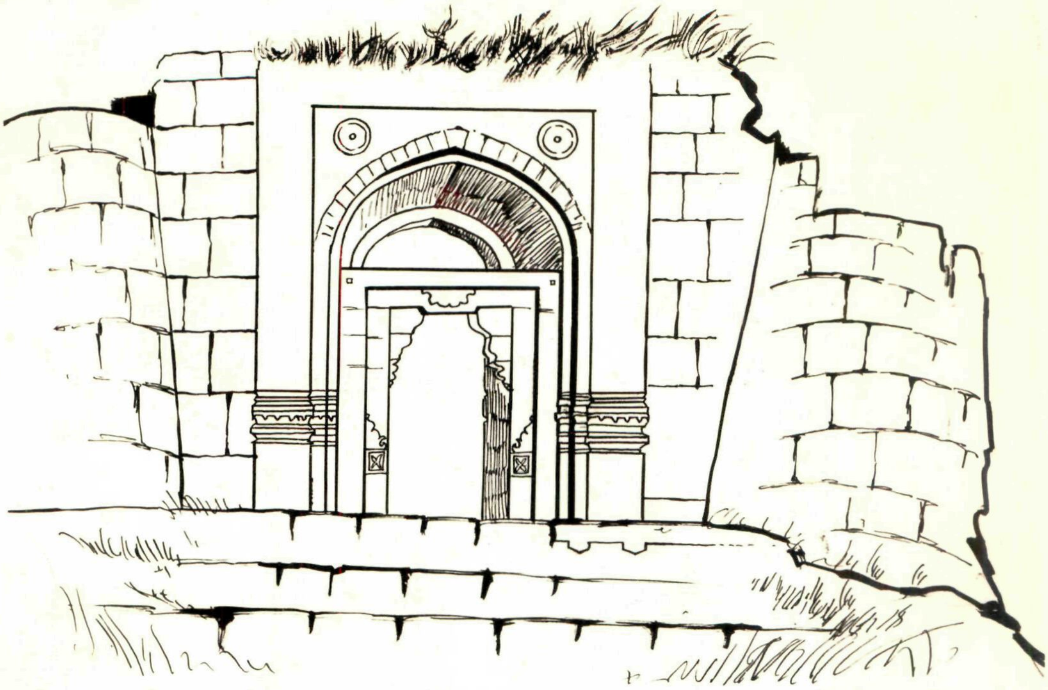
A gorge is an approach to the fort through a narrow pass, which comes before the actual ascent of the fort. For instance, one can reach the Viśāḷgad fort only through the Ghāḍ Khiṇḍ, a gorge which is 0.60 Km. in length. Here the gorge was provided with battlements and side wall-walks (Fig. 11 ब).

Sometimes the gorges are responsible for cutting off the forts from the other parts of the hills. We find that the forts like Rāyagaḍ (Fig. 30), Viśālgaḍ, Malanggaḍ (Thana dist.) were erected on the parts of hills which were separated by the gorges.

It may be noted that generally the hill forts were accessible from various villages. The fort of Sinhgad was accessible from Kondhanpur and Doṇaje. The Rājgad fort was accessible from villages viz. Pābe, Maḷe and Mārgāsanī. Sometimes the fort was accessible from two provinces. The fort of Ahivant (Nasik dist.) was

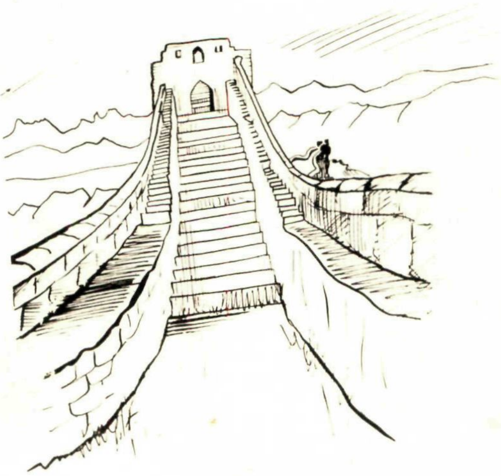
Fig. 15

a

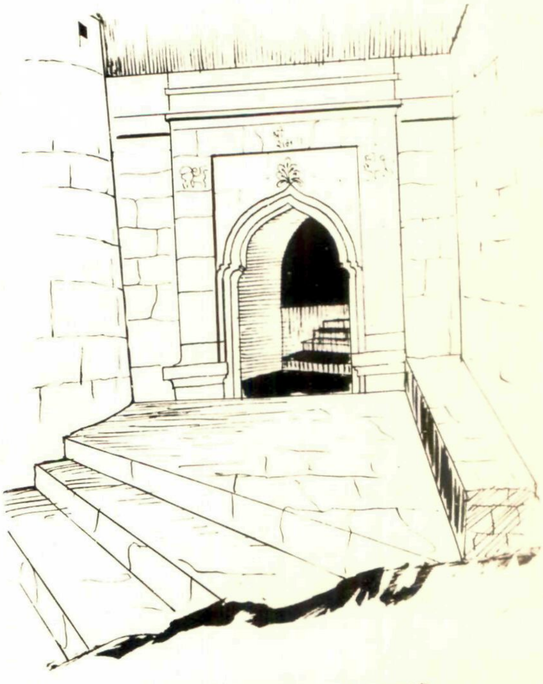


MAIN GATE. VISHALGAD

b.



DINDI SUVELA MACHI. RAJGAD



GATEWAY OF UPPER FORT. PRATAPGAD.

accessible from Khāndesh as well as from Nasik province (Gangathaḍī). Such forts held peculiar position from strategic point of view.

(IV) Scarp

To make the access more difficult the hill was generally scarped all around the summit. Sometimes natural precipice served the purpose of a scarp. We find such natural scarps in case of the forts like Jīvadhan (Poona dist.), Gāḷanā (Nasik dist.), etc. At Kavanaī fort (Nasik dist.), the scarp is nearly perpendicular and can be climbed by rough rock-cut steps. Trimbak fort (Nasik dist.) has the scarp which varies in height from seventy to one hundred and forty metres around the summit.

The artificial scarps are provided to the forts like Sātārā, Panhāḷā, Ghosāḷgaḍ, etc.

In case of hill forts, the ditch or moat is not considered an essential feature. Here scarp replaced the ditch.

(V) Fort Walls

Along the crest of the scarp fort walls were the further defences of the forts. According to Amātya, the fort should not be treated as a place of temporary need. Fort walls, bastions, armours, watch-posts and battlements should be built whenever necessary.[54] In case of a fort where the plain land embrances the entrance of it, Amatya suggests that a deep and wide trench should be excavated all around the fort.[55] Further a parapet wall i.e. battlements should be constructed upon the rampart and big and small guns should be placed so as to prevent the enemy ~~to~~ from reaching at the foot of the fort.[56] We find a wide and deep moat excavated all around the fort of Daulatābād. If moat around the fort is circular, it ~~has been~~ is called Revaṇī.[57] The ditch at Daulatābād is the best speciman of Revaṇī (Fig. 5a).

In case of hill forts, the necessity of curtain walls was always determined by the nature of the hills. Where the precipice or scarp is less perpendicular and which allows the ascent, the curtain walls were absolutely necessary. Sometimes the perpendicular rock broke at certain points into an easy ascent. In such cases, the curtain walls were necessary to erect at vulnerable points. We find that the western face of Visāpur, the South-Western face of Sinhgaḍ (Fig. 11 57) were defended with the artificial screen walls. In case of Dhodap fort (Nasik dist.), we find that the curtain walls were built and extended ~~along walls were built and extended~~ along a considerable portion of the east, north-east and north sides of the fort. These walls were built at such places where the precipice was less perpendicular.

In case of ground forts, we find sometimes two or three successive lines of the curtain walls. The hill forts are often found strengthened at certain points with two or more walls. At Rājmāchī fort (Poona dist.), the western side was strengthened by a double line of curtains. In case of Mulher fort (Nasik dist.), we find eight curtain walls built at equal distances from each other. The fort Ankāī (Nasik dist.) had seven lines of fortification.

In case of hill forts, we find peculiar feature of 'armour' known as 'Chilkhat'. This is a double line of curtain wall but the distance between the two is considerably narrow. Here the second line is generally higher than the first one. We find such armours at Rājgad and Pratāpgaḍ. These armours afford the additional protection and cover for the defenders. They also form a part of the retaining walls. A very interesting form of chilkhat is available at Rājgaḍ fort. Here the outer wall of Suveḷā Māchī is strengthened at certain points by providing underground 'Chilkhat' (Nāḷa) From this underground passage garrison could charge through ~~from~~ the lower loop-holes.

If the

In case, if scarp is not perfectly perpendicular, the curtain walls were necessary to build all around the summit. Hatagad fort (Nasik dist.) had a masonry wall all around the summit, as the scarp was not perfect. The same is true in case of the Pisol fort (Nasik dist).

The curtain walls were generally of considerable height varying from 4.50 m to 7.50 m. The average breadth at the base was about 3 m and tapered towards the top which was about 1.50 m. The wall-walks were generally provided with stone parapets or battlements consisting of merlons and embrasures. The battlements were known as 'Padkoṭ'[58] The merlons were known as 'Ardhadal'[59] (Fig.3a). The defence of the walls was through the embrasures and loop-holes in the battlements (Fig.3a). The embrasures were known as 'Fālikā', whereas the loopholes were known as 'Jangyā'[60] (Fig. 3a). The average height of these parapets from wall-walks was 5.50 m.

Bastions were built at particular points all along the curtain walls. Sometimes, independent bastions or towers were built at strategic points to command the ascent. We find a bastion called 'Khūbladhā Burj' (the great fighting bastion) on the way of ascent to Rāyagad. Bastions were generally semicircular and without lobes. But when they flanked the gates, we find sometimes one or two lobes ~~(Fig.~~). The Small guns were mounted on these bastions to command the approaches.

For the construction of the ramparts, large blocks of stone were generally used. The fort walls of Rājgad and Rāyagad were constructed with blocks of stone fitted with mortar. Sometimes the dressed stones were used for the construction of fort walls. The ramparts of Sinhgad, Purandar, Rājmāchī were constructed with dressed stones.

(VI) Gateways

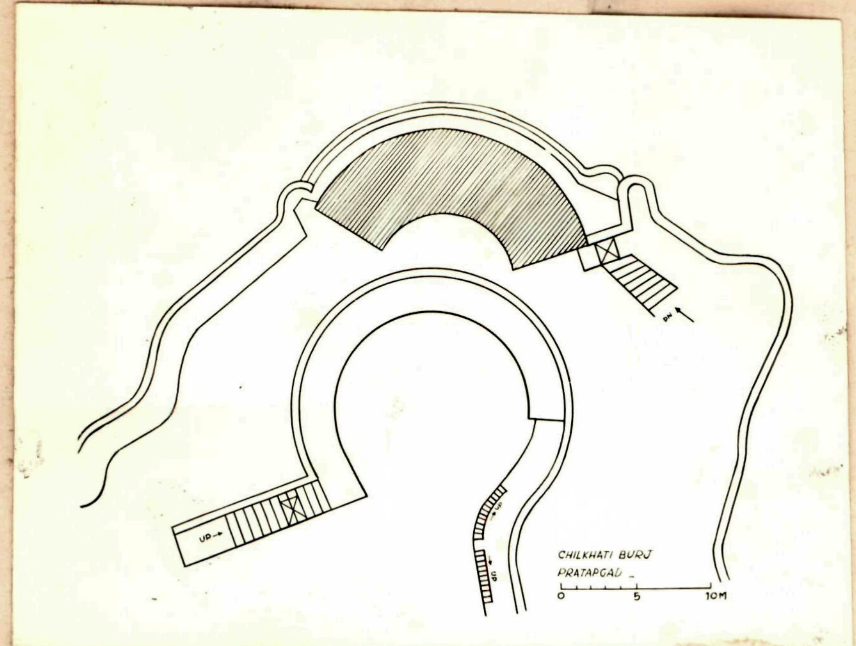
The weakness of impenetrable ramparts lies in gateways. As such, the utmost care was taken for strengthening the gateways. Amatya says, 'gates should be built in such a way that they should escape bombardment from below, and they should have towers in front which would control the paths of egress and ingress.'[61] Here it may be noted that the method of so called right-angled gateways is not recommended by Amātya. The barbicans and the right-angled or crooked gateways were the peculiar features of the medieval fort architecture. But in case of hill forts, the massive bastions that flanked the gates replaced the barbicans. Of the two flanked bastions, one is generally stretched at considerable distance to defend the gate. (Fig. ~~12a~~ 7b) We find such bastions which served as barbicans at Rāyagad, Prachandgad (Fig. ~~11~~ 7a), Purandar (~~Fig. 12a~~ 7b) and at so many others.

The right-angled gateways were rarely practised in respect of hill forts. We find that the Mahādarwājā of Rāyagad was perfectly crooked which resembled to the gateways of the Bahāmanī forts. Another example of such gateway is the Delhi gate of the Purandar fort (~~Fig. 12d~~).

Amatya warns that one gate to a fort is a great drawback. Therefore, according to the needs of the fort, one, two, or three gates and similarly small secret passages should be provided.[62] We know that Daulatābād fort had only one entrance which made the Yādava King helpless against the assault of Alā-ud-din Khaljī which was concentrated on the only gate of the fort. The forts used by Shivaji were provided with two or more gates. The following examples are noteworthy.

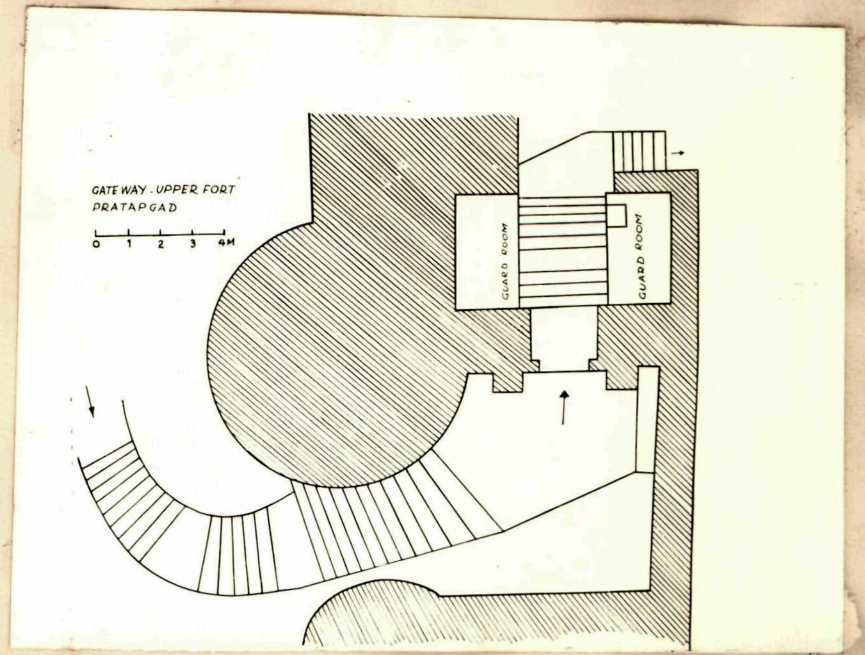
- Fort -	- Doorways -
Sinhgaḍ ...	Kalyāṇ, Doṇaje

Fig. 16


UP
DN
UP
CHILKHATI BURJ
PRATAPGAD
0 5 10M

a

b


GATE WAY - UPPER FORT
PRATAPGAD
0 1 2 3 4M
GUARD ROOM
GUARD ROOM

Pl. V

Main gate, Viśālgad.

Rāyagaḍ	...	Nānā, Mahā, Wāgh
Rājgaḍ	...	Pāli, Gunjavane, Aḷu, Kaḷeshwari
Purandar	...	Binī, Delhi, Ganesh, Konkan
Gāḷanā (Nāsik dist)	...	Pārkot, Lokhaṇḍi, Kotwāl Pīr, Lakh
Mahipatgaḍ	...	Kotwāl, Lāl, Pusaḷi,
(Ratnāgiri dist.)	...	Yashwant, Kheḍ, Shivagangā
Panhāḷā	...	Teen, Don, Wāgh

Here it may be noted that the practice of having a succession of gateways was common in the medieval period mainly from the strategic point of view. The system is also known as the line of defence. The successive three gates known as Kalyāṇ gate of the Sinhgaḍ fort were arranged in such a manner that the entry of the enemy could be prohibited even by throwing stones (Fig.11b)

In case of hill forts, brisk windings were always troublesome to the climbers. We find that the Delhi gate of Purandar fort is approached by tracking several windings covered by loop-holed walls and sheer rocks. Further the gate itself is completely hidden by massive rock. We find such windings at Rāyagaḍ, Rājgaḍ, Toraṇā and Sinhgaḍ.

The gates generally consisted of pointed arches (Fig. ~~14a~~ 12a). In rare cases the cusped arches were used (Fig. ~~14b~~ 13a Pl. IV a). In earlier period we find a combination of doorframes and arches in relief (Pl. IV a Fig. ~~15a~~ 14b). At Teen Darwājā of Panhālā fort, there is a good combination of recessed door frames and recessed arches in relief. (Pl. IX a). At Viśālgad fort, the doorframe of stone having the height of 1.65 m. is fixed in the arch (Fig. 15~~b~~ a). Here the doorframe itself could serve as an obstacle to the entry of an enemy. A fine example of recessed arches is found in case of second Pāli gate of Rājgad.

A timber bar was generally used to support the closed doors. The socket of this bar is generally found square or round. But at Rājgaḍ we find the artistic sockets ~~(Fig.)~~.

At Lohagad fort the gateways were strengthened by masonry bastions, the windings of the steps and the heights of the gateways being so planned that the appreach was commanded by all the bastions.

The height of the gateays varied from 8 ft. to 24 ft. Perhaps the main gāte of Malanggaḍ fort (Thana dist.) is the smallest so far as the medieval forts were concerned.

These gateways, like the curtain walls, were built with large blocks of stones, or sometimes with dressed stones.

We also find some examples of rock-cut gateways. At Hātgad (Nasik) and Ratangad (Ahmednagar), rock-cut gateways were provided to the curtain walls. Here approaches to the gateways were found through rock-cut passages which usually covered the gates.

The trap-doors had also great significance in the time of emegency. The specimen of trap-doors are avaialble at Harishchandragad (Ahmednagar) and Rāmsej (Nasik). About the trap-doors Amatya says, ' the secret paths should be kept in order to escape through them in time of emergency. These doors in ordinary times should not be used'.[63] Further he hints that the doorways which are always necessary for usual intercourse should be kept open and other doors and outlets should be filled up.[64] We find that some gateways like those of the Toraṇā were filled up with stones or bricks, permanently.

Sometimes the doorways were constructed at weak points of ascent. We find Nānā Darwājā of the Rayagad fort which was constructed for commanding the ascent (Fig. 30).

Designs and sculptures

On either side of the gateway of several forts, we find the sculpture of Gajasārdula or Gaṇḍbheruṇd in relief (Fig. 22b). The origin of this sculpture is described elsewhere. In Poona gate of Sinhgad fort, the flowers are shown in relief on either side of the doorframe (Fig. 14b ~~16a~~). Besides, the arch with flowers and other designs is shown in relief above the doorframe. An interesting sculpture of monkey appears here on the flanking bastion (Fig. 14b ~~16a~~). At Rājgad fort, the doorway of Gunjavane is flanked by the elephants holding pitchers with their trunks, whereas the lotus-bud is shown above the pointed arch (Fig. 27a). At Teen Darwājā or Panhālā an interesting sculpture of the elephant with peacock on its trunk is shown in relief on either side of the gateway from within (Fig. 13a ~~14b~~). Here doorframes are shown in relief with lotus-bud motif in centre (Fig. 13a ~~14b~~).

As we know that the defence of the fort walls was through the merlons and embrasures of parapets. In the Bahāmani age, the merlons and embrasures achieved a place in the architectural scheme, so far as the civil buildings were concerned. It is curious enough to observe that this scheme was applied later on to the gateways of the forts. At Kothi Darwājā of Toraṇā, the merlons are shown as design whereas the embrasures are found filled up (Fig. 12a ~~16b~~). Here the defence of the gateway was from the loopholes in the flanking bastions (Fig. 12a). ~~In case of~~

At the second ~~p~~Pāli gate of Rājgad, the cresting is ~~found~~ of plain 'cup-shaped' motif (Fig. 27 a). In case of Mahādarwājā of Rāyagad, the cresting is 'lotus-bud' or 'cup-shaped' design (Fig. 22 b) which is strikingly identical with the crestings found in various Bahāmani monuments at Bijapur.[65]

(VII) Bastions

The bastions or towers are already referred to while describing the fort walls and gateways. Sometimes the bastions were also provided with 'chilkhats' (Fig. 29b). At Pratāpgad, the strong chilkhat is provided to defend the main bastion behind it (Fig. ~~17a~~ 16 a).

(VIII) Guard rooms

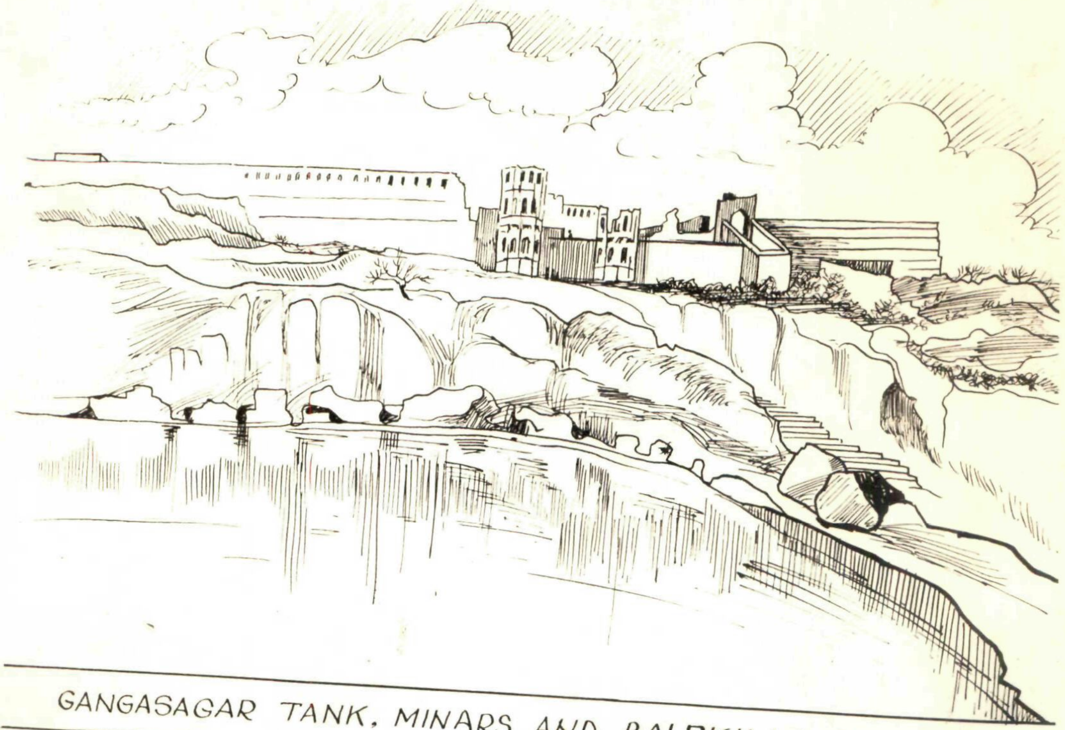
Inside the gates, the guard rooms were generally provided to both the sides (Fig. ~~17b~~ 16 b). At Rājgad fort, we find that the guard rooms were constructed in right angle to each other, in the case of Pāli gate (Fig. 27 b). Here the guard room to the left side was placed at right angle to the entrance so as to hide it from the eye of intruder. In the case of Panhālā fort, we find a series of guard rooms. ~~(Fig.)~~.

Amatya is silent on guard rooms. In Akāśbhairavakalp, it is mentioned that the residence of gatekeepers should be provided adjacent to the rampart.[66]

(IX) Store-houses

For storing grains, the rock-cut cells were used since a long time. These caves were generally found with crude pillars or sometimes without them. A decorative or ornamental work was avoided in the case of rock-cut granaries. We find some decorated pilasters at the caves of Daulātābad and Bhāmer (Dhulia dist.). But here also the ornate work is not superior and noteworthy. Of the 32 caves at Daulātābad, several caves were used as granaries. The forts like Kānhira, Kāntrā, Morā, Ankāi, Bahulā, Dhodap, (Nasik dist.); Haḍasar, Lohagaḍ, Rājmāchī (Poona dist.) were provided with rock-hewn cells for storing the grains. In the case of J̄ivadhan fort (Poona dist.), it has been reported that when the fort was captured by the British troops, the caves were found stored with grain.[67] During the times of Shivaji, it seems that built up granaries were preferably used for storing the grain. Amatya says, ' the granaries and stores of military equipment should be built at such places where there would not be any hazard owing to fire, rats, insects, ants and white ants. The floors of storing houses should be paved with stones and mortar. By building the store-houses in mortar at suitable places, oil and ghee should be stored there in glass and earthen vessels.'[68] Like built-up granaries, the rock-cut cells were also in use during the period of Shivaji. At the Lohagad

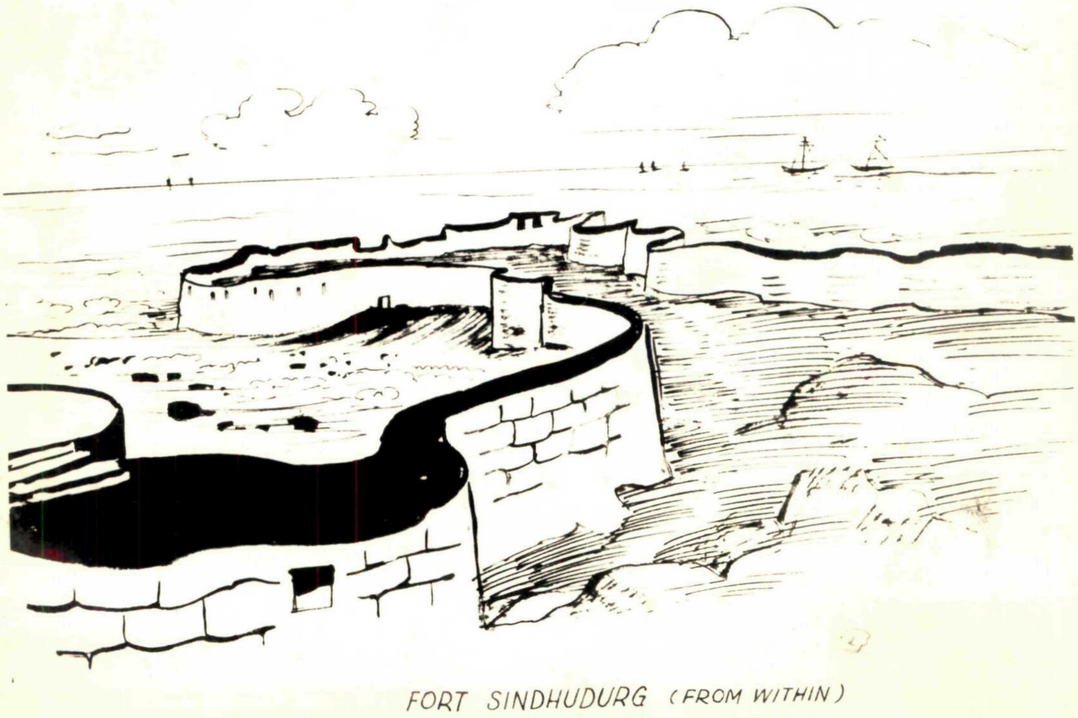
Fig. 17



a

GANGASAGAR TANK, MINARS AND BALEKILLA RAYGAD

b



b

FORT SINDHUDURG (FROM WITHIN)

fort, two rock-cut cells were used by the Marathas as 'Nāchaṇī'-store and rice-store.[69]

'The Laxmi Kothi' at Lohagad fort is an interesting example of rock-hewn granaries. Here the rock-cut hall measuring about 16.25 m in length, 9.15 m. in breadth and 2.12 m. in height was in use as the store-house. The cave was without pillars and ornaments. For actual store, the part of the hall was distinguished by a brick partition. Arrangements were made in the roof for hanging the scales essential for weighing the grains etc.

In built up granaries, Ambarkhānā on the Panhālā fort was a typical store-house with a vault roof where the small holes were kept for pouring the grain. The word Ambarkhānā itself denotew the grain-store.

(X) Ammunition storage

Ammunition was generally stored in rock-cut cells. The cells were bomb-proof and hence useful for the storage of ammunition. Amātya says, 'the powder magazine should not be near the house or near the compound of the house. It should be built at appropriate distance from the chief place and be surrounded by thick enclosure of 'Nirgudī' and other trees. It should have an under-ground cellar.[70] We find the best specimen of rock-cut magazines at Dhodap

~~SP.7717~~ Th. 3169

(Nasik dist.). The forts like Ankāī, Trimbak, Morā, Mulher (Nasik dist.); Lohagad, Purandar, Sinhgad (Poona dist.) were provided with the magazines consisting of rock-cut cells. While constructing the magazines at Rayagad fort, Shivaji had taken sufficient care for allotting the place far away from the citadel (Fig. 30).

(XI) Water supply -

Amatya says, '.. moreover after first finding out if there is water in the place, then a fort should be built. If there is no water, and if it becomes necessary to fortify the place, then by breaking the rock, reservoirs and tanks with water sufficient to last till the rainy season for the whole fort should be built.'[71]

It is obvious that the supply of drinking water was the basic need of a fort. It is noteworthy that Shivaji surveyed the hill of present Bharatgad fort (Ratnāgirī dist) in 1670 but left it unfortified as no water was available.[72] But when Phond Savant dug a rock-cut well and found water, he undertook the fortification of the hill in 1680.[73]

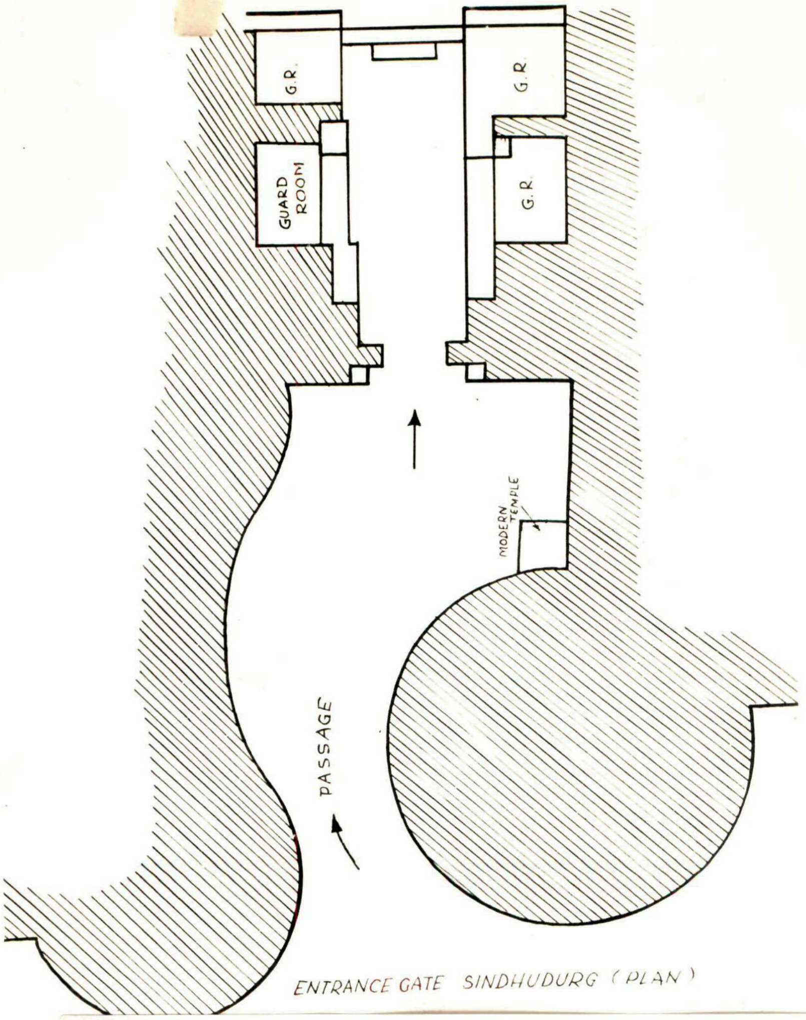
All the medieval hill forts were provided with rock-cut cisterns. Some of them had their own springs. The fort of Bhairavgad (dist. Thana) was having several natural springs that could supply water throughout the year.

But we find that the hill forts were provided with rock-cut cisterns generally on the summits. These cisterns were storage tanks fed by rains. Forts like Daulatābād, Bhāmer, Hadsar, Purandar, Sinhgad, Rājgaḍ, Toraṇā, Lohagaḍ, Hatgaḍ, Ankāī, Trimbak, Aśerī, Gaurkamal, Gumātrā (last three in Thana dist.) were well provided with rock-cut cisterns. Of these cisterns, 'Deva Tākā' at Sinhgad is still famous for its excellent and perennial water.

The best example of water supply is found at the Rāyagad where the great Gangāsāgar tank is found full of water during all the seasons. It is 114.35 m. in length and 91.50 m. in width. Here while digging the tank Shivaji might have borne in his mind its three-fold advantages. First, by excavating tank the provision of enough water could be made. Second, the large block of stones from the quarry made for tank could be used for buildings. Third, by excavating the rock- the scarp could be provided to Bālekilla by which the protection of citadel could be secured. (Fig. ~~183~~ 172 Pl. XII b). Besides Gangāsāgar, there are several tanks at Rāyagad that ensure good water supply. Amatya hints, 'one should not wholly depend upon (one tank). For, during fight springs get dried up owing to the noise of guns and hence arises the

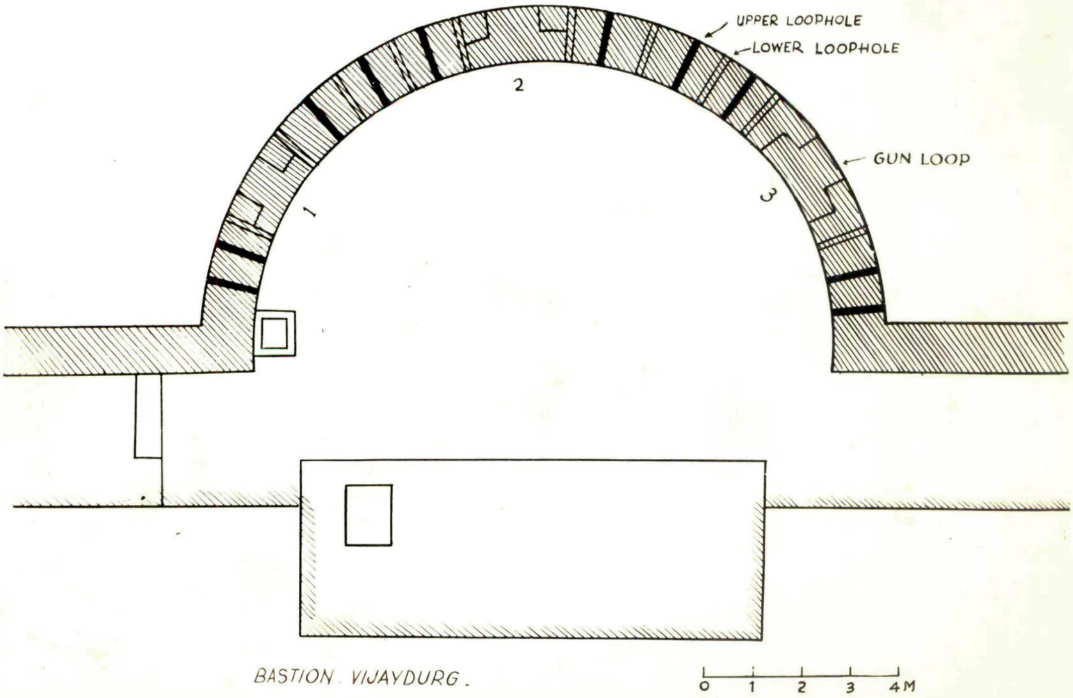
Fig. 18

a


G.R.
G.R.
GUARD ROOM
G.R.
MODERN TEMPLE
PASSAGE

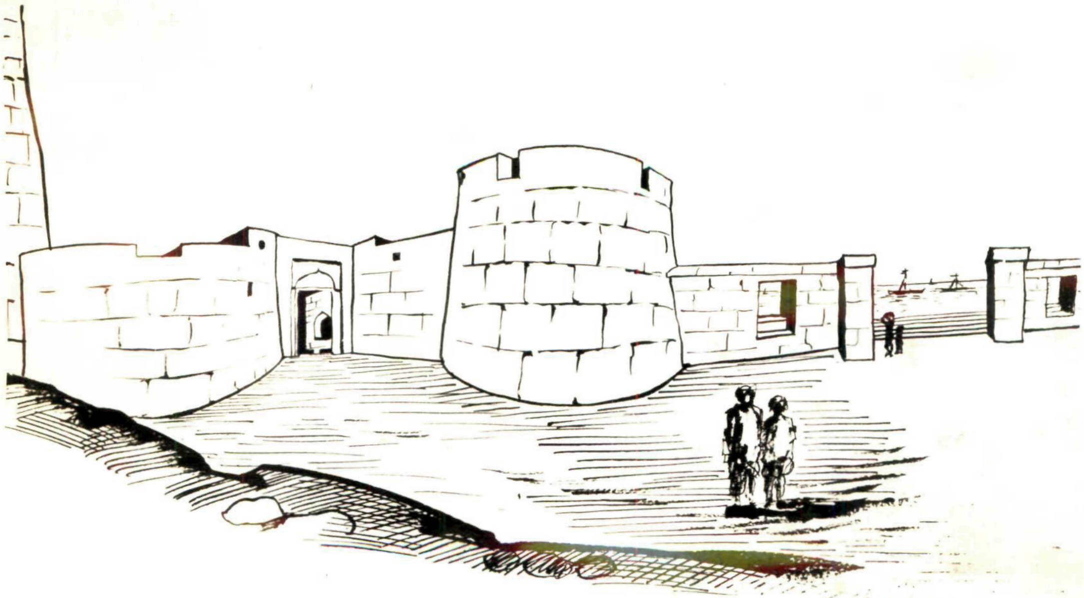
ENTRANCE GATE SINDHUDURG (PLAN)

b


UPPER LOOPHOLE
LOWER LOOPHOLE
GUN LOOP
2
1
3
0 1 2 3 4M

BASTION. VIJAYDURG.

Fig- 18



SECOND DOORWAY OF FORT VIJAYDURG.

C

difficulty (of water). Therefore for storing water two or four reservoirs should be constructed. Water from them should not be allowed to be spent. The water in the fort should be well protected.'[74] At Rāyāgaḍ fort, we find a series of tanks in premises of magazines.

(XII) Residential Quarters.

So far as the hill forts are concerned, the remains of residential quarters are rarely found. No permanant buildings were provided to officials and garrison on forts. According to Amatya, 'on the fort, excepting the royal residence, no well-built house should be constructed.'[75] However, in the case of Rājgaḍ and Rāyagaḍ forts we find a good number of houses and other buildings.

A few peculiar features of hill forts

1. Metā - Metā means a place made for watching the communication to the fort. Generally metā is a plain situated on the way of ascent. The duty of a watch-man appointed for metā was to check and report if any strange man or group of strangers were climbing the fort. These watch-posts were normally without any fortifications. We find references ~~of~~ to seven metās located on the Toraṇā. They were allotted to the 'Kolīs' of Wāī.[76] (Satara dist.) The names of these metās were associated with the adjacent

places viz. Dhol Kāthī, Kothī Darwājā, Bhāndī Darwājā, etc.[77]

2. Māchī

The Rājyavyavahārkośa describes 'Māchī' as 'Upatyakā'.[78] Generally it is a plain land or plateau of considerable length and breadth situated at a distance from the summit. These table lands were necessarily supposed to fortify from the strategic point of view. Sometimes these māchīs or redoubts were treated as independent forts. In Māsir-i-Ālamgirī, three machis of Rājgad fort were treated as separate three forts.[79] For administrative purposes also, māchī was supposed as an independent unit. Being treated as a part of fort, the fortification for māchī was indispensable. We find good examples of the māchīs at Rājgaḍ (Fig. 26a), Toraṇā (Fig. 26b), Purandar, Malanggaḍ (Thana dist.) etc. These māchīs were provided with fortifications at vulnerable points. The approaches to the māchīs were generally made inaccessible. We find very difficult approach to the Zunzār māchī of Toraṇā fort. The second māchī of Toraṇā is famous by name 'Budhalā māchī' and it covers the area of nearly two miles. (Fig. 26b). The name prachaṇḍgad was probably applied to the Toraṇā fort because of its spacious māchī.

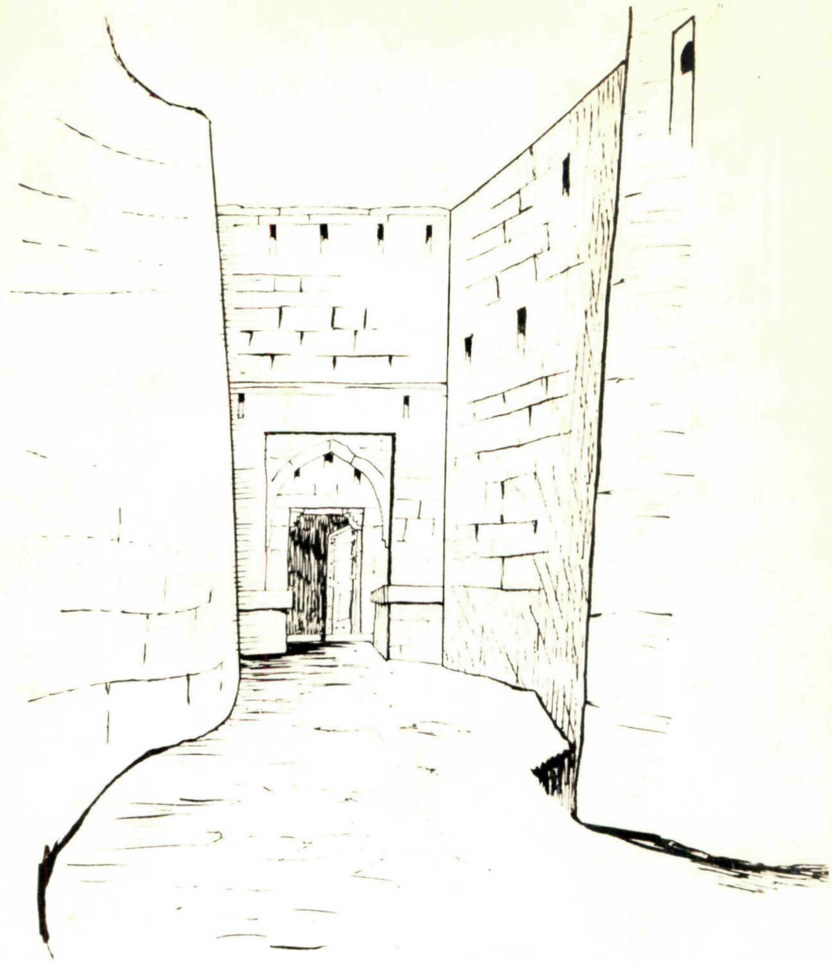
Māchīs, although situated at distant places, were the parts of the main fort. Therefore, a network of routes between the citadels and māchīs was generally provided for inter-communication. The best example of such inter-communciation is found in the case of Rājgad. (Fig. 26 d)

3. Bāla-i-Killā

Bāla-i-Killa or Balekilla is a Persian word denoting the citadel which is also known as Killā-i-ark. The word is generally used for inner fort ~~to~~ in case of ground fort and for upper fort in case of hill fort. The citadel or Bāle Killā was the last resort where the garrison could retire in time of crisis. As it was strategically more important, particular care was taken to strengthen it by making its approaches inaccessible. It was also indispensable to fortify the citadel with the provision of keen battlements. In the 'Rājyavyavahār Kośa' the word 'adhityakā' denotes the Bāle Killā.[80] In case of such citadel we find that generally one gateway is provided for inter-communication of the fort. As it was the last resort, the Bāle Killā was usually provided with water cisterns, granaries, etc. in order to meet all the necessities in a critical period.

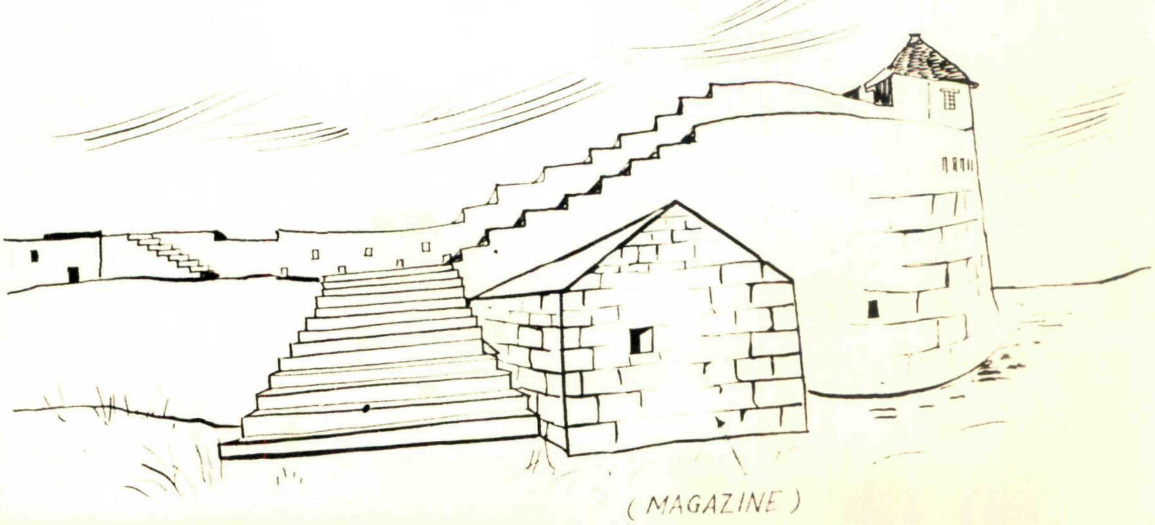
Fig. 19

a



ENTRANCE GATE SINDHUDURG FORT

b



(MAGAZINE)

'FORT VIJAYDURG'

The forts like Arnālā (Thana), Purandar, Rājgad, Toraṇā (Poona), Pratāpgad (Satara), Harishchandragad(Ahmednagar), Rasālgad, Ratnāgirī, Redī or Yashwantgad (Ratnagiri) were provided with citadels.

The citadel of Rājgad is one of the best specimen of difficult access and keen battlements (Fig. 29 b). Here the garrison could prevent the climbers by throwing, nay, by pouring the heaps of stone. ~~The~~ The citadel of Ratnāgiri is situated on a isolated hill and provided with strong fortifications. The citadel of Jinji is also well built and the limited garrison could resist here for considerably long time. Rajaram, the son of Shivaji, resorted to this citadel for long time in crisis after the death of Sambhaji.

Marine Forts

In the 'Rājyavyavahārkośa' the word Janjirā denotes the ' dvīpadurga '[81] (a sea fort). We find that the importance of marine forts was raised during supremacy of the Nizāmshāhī. By the end of the fifteenth century, the Nizāmshāh of Ahmednagar had established his own navy at Janjirā, situated at the mouth of Rājāpurī Creek. The purpose of establishing navy was twofold. The Siddī (Abyssinian), who was appointed as in-charge of Janjirā, had to supervise the coastal trade as well as the safe conveyance of Muslim pilgrims to Macca.

When Shivaji expanded his territory across the western ghats into the coastal region of Konkan, he was severely opposed by the Siddi Chiefs of Janjirā. Shivaji established his own navy and constructed and rebuilt the marine forts like Vijaydurg, Sindhudurg, Suvarndurg, etc. in the teeth of the Siddi's opposition. To reduce the Siddis, he constructed the marine fort of Kānsā or Padamdurg opposite to Janjirā at the mouth of Rājāpurī creek. Further he constructed the marine fort of Kolaba or Alibag to strengthen his coastal rule. The purpose of establishing naval order was to hold in check various powers of the west coast including the Portuguese. The Siddis of Janjirā, of course, were the chief rivals of Shivaji. About the Siddīs, Sabhāsad says, " they are just like rats in house ".[82] According to Sabhāsad, Shivaji constructed several marine forts in order[83] to reduce the rival sea powers.

Amatya, while paying a tribute to Shivaji says that he constructed marine forts for reducing the enemies who were already holding strong marine forts.[84] One more reason for establishing the chain of sea forts on the west coast was that Shivaji wanted to keep an opening for escape by sea if he was overwhelmed by the enemy on land.

Of all sea forts of Shivaji, Sindhudurg for at Malawan (Ratnāgirī dist.) enjoys a unique position. In the year 1664, Shivaji constructed this fort on the rocky island surrounded by sea. For the construction of this fort, it is said that 500 masons, 200 smiths, 100 Goanese Portuguese and 3000 labourers were engaged nearly for three years. The total expenditure on the consturction of this fort is calculated 1 crore Hons. Further, it is reported that Shivaji used the lead in large quantity (Five Khaṇḍis) while laying the foundation for the fort. For the defence of the main fort, he fortified Padamdurg, the smaller island and also built two fort~~t~~resses viz. Rājkot and Sarjekot at the mouth of the creek.

The Sindhudurg fort has a highly irregular shape, the rampart of which covers several projecting points. The main advantage of this irregular shape was that no point of the rampart was left uncommanded from within (Fig. ~~20a~~ 17b). The towers are generally semicircular with fine embrasures for cannon. They are 42 in number and interval between them is 36.40 m to 118.80 m. The fort walls are low, ranging from 8.85 m to 9.15 m and of general thickness of 3.65 m. The entrance is at the nort-east corner. Here the projective bastions flanking the gate served as barbican (Fig. ~~20b~~ 18a).

Vijaydurg (Ratnāgirī dist.) was an ordinary sea fort before the rise of Shivaji. In the middle of the 17th century Shivaji strengthened this fort by erecting three successive lines of walls with provision of projective towers. The walls and bastions were provided with multiple loopholes (Fig. ~~21a~~ 18b). In battlement crestings, the large rectangular embrasures were provided probably for guns (Fig. ~~21b~~ 18c). The doorways were arranged skil~~l~~fully in order to deceive the intruders. It is curious enough to note that the magazine was built here adjacent to the rampart and near the bastion (Fig. ~~22a~~ 19b). The reason was that the immediate supply of ammunition could be made to the garrison on the wall-walks and gunners on the bastions. While strengthening this fort, Shivaji took the help of European engineers.

Suvarṇadurg (Ratnagiri dist.) was also strengthened by Shivaji in 1660. Here the great part of the fort walls is cut out of the solid rock and the rest is built of blocks of stones.

Of all the sea forts, Janjirā (Kolaba dist.) was unique owing to its strategic importance. The average height of the ramparts is 16 m. The fort consists of 19 bastions, all of which are semicircular. The parapets of the bastions are provided with embrasures for gunnery (Fig. ~~21b~~ 1d). Here magazine was provided in the centre of the fort. The main gateway is of 12.10 m in height and 6.5 m in breadth. Janjirā was actually the watch-post of the west coast and Shivaji had a plan to conquer it. His attempts proved futile and the fort remained in the hands of the Siddis. Shivaji built the fort of Khānderī in 1679 in the teeth of opposition from the Siddīs and English.

Pl. VI

a. Bastion
Pratāpgad

b. Janjirā fort

c. Khubladhā bastion,
Rāyagad

Pl. VI

d. Sindhudurg fort, general view

As regards the marine forts, Gopālgaḍ, Jaygaḍ, were chief forts commanding the west coast.

The fort walls and bastions of the marine forts were generally strong compared to those of the hill forts. In the case of the marine forts, we find the provision of postern gates generally kept for escape in times of crisis (Fig. ~~203~~ 176). Although surrounded by sea or land and sea, we find the provision for drinking water was abundant on these forts.

Some beliefs

1. Bhūmi-pūjān

It seems that during the times of Shivaji some religious rites were to be observed while laying the foundation of fort. We learn from one document that Shivaji performed the Bhūmi-pūjan according to religious tradition before laying the foundation stone of Sindhudurg fort.[85]

2. Burial in foundation

So far as the medieval forts are concerned, we learn sometimes about the custom of burying human bodies in the foundations of forts of precise to say in the foundations of bastions. Even Muslim rulers like Ala-ud-din Khalji practised the custom while laying the foundation of fort at old Delhi.[86] The romantic story of such burial is found in the case of ' Shendryā Burj ' at Purandar fort.

We learn from two copper-plates that a married couple is reported to have been buried while laying the foundation of Shendryā Burj. It is mentioned in the copper-plate that 50,000 gold bricks were used for construction and two villages granted to Esāji Nāik, who provided the couple alive for burial purposes.[87] We learn such reports of burials in the forts of chākaṇ[88] and Sholapur.[89]

It is not known whether Shivaji practised such custom while building his forts. One document tells us that Shivaji ordered to bury one Mahār, the disloyal servant, in the foundation of Rohidā fort.[90] But here it may be noted that Shivaji did not practise the old custom but simply punished the disloyal person perhaps with a view to striking terror in the minds of the others. However, we come across very rare cases of this type during the Maratha period.

The custom of burying human bodies also prevailed in the western countries as we find some references to it in the Bible.[91] It is interesting to note that the said custom was in practice during the times of the British. We learn that it was proposed to bury ~~the~~ a human body while constructing the East Indian Railway bridge across the Jamuna.[92]

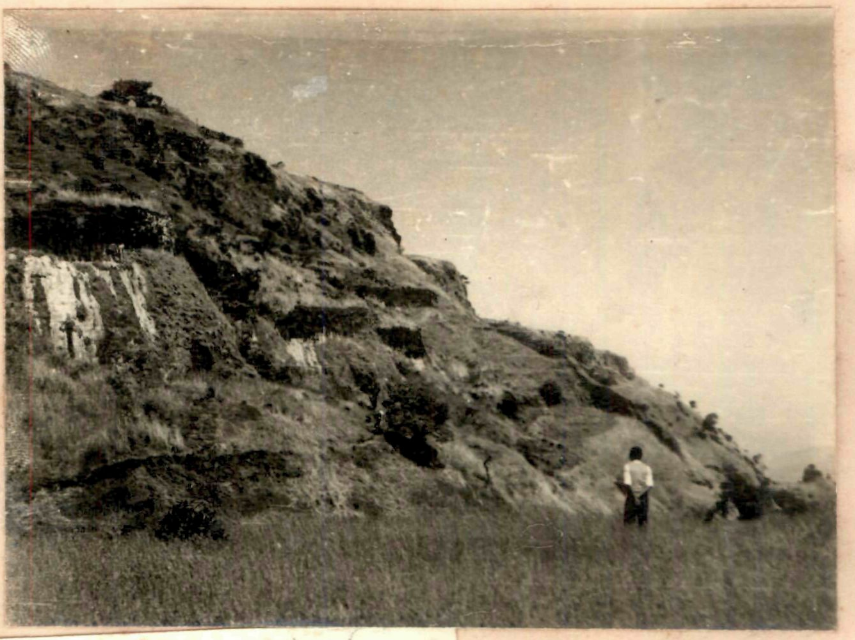
Gajaśārdula (Gaṇḍbheruṇḍ)

Gateways of several forts are often found flanked in relief of the fort wall by the sculptures of Gajaśārdula or Gaṇḍbheruṇḍ. It is interesting to note that these sculptures appear on the either side of the door-ways of the forts like Gāvilgaḍ, Shivnerī, Janjirā (Pl. ~~IV a~~ II b) etc., constructed by the Muslim rulers. We also find such figures at one of the bastions at Chākaṇ and at the tower of Mulk-Maidān cannon at Bijapur. These sculptures are also seen on either side of the gateways of the forts like Pratāpgaḍ, Rāygaḍ, etc., built by Shivaji. Although Gajaśārdūla and Gaṇḍbheruṇḍ are popularly supposed as one and the same, their iconographical features are different.

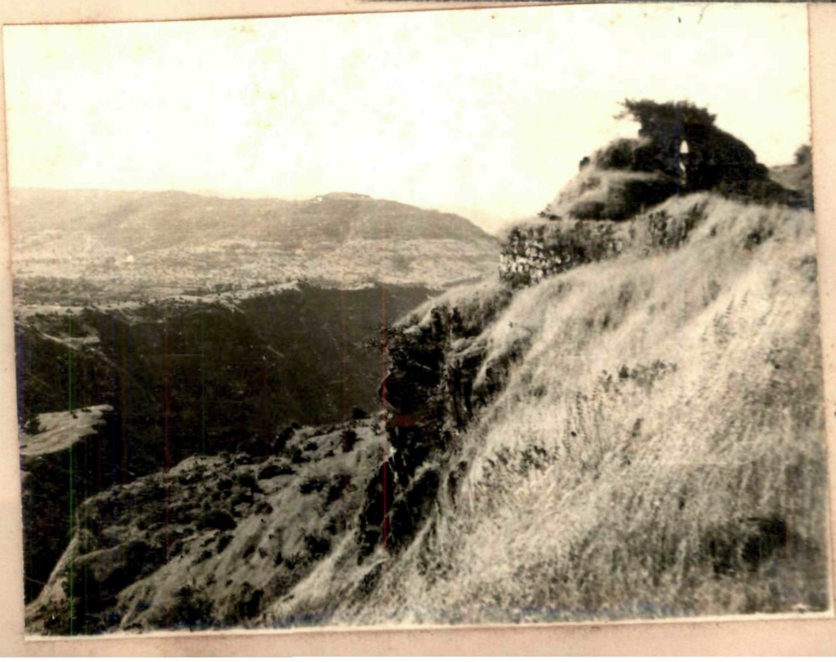
In Gajśārdūla figure, the lion or tiger is generally shown with small elephants under its feet. Although the sculpture has been independently used in the structure of fort complex, it has its origin in the prabhāvalī motif which serves as the bakcground of major image of god.[93] In early and mediaeval Hindu images of northern and eastern India, the Gajaśārdūlās are found carved in the pedestal of prabhāvalī.[94] In Kailas temple, the rock-hewn cave, at Ellora, we find that the sculptures of lion (vyāl) upon elephant are carved on the outer wall of the main temple known as

Pl. VII

a. Viśālgad fort
Scarp and vegetation.



b
Viśālgad fort
from below



c.
Viśālgad fort
Surrounding area

Rangmahāla. The figure has been appeared on the walls of earlier forts like Daulatabad, few miles away from Ellora.

At Shivneri fort, there is a sculptured pannel upon the wall flanking the second gateway. It represents a lion or tiger standing with small elephants under each of its hind feet, and a two - headed eagle under its front feet. Here the two-headed eagle is a fabulous bird, Gaṇḍbheruṇḍ, which is famous in Karnatak provinces.[95] This figure is also found on the small Vijayngar gold coins of the 15th and 16th centuries.[96] The figure of lion shown with elephants under hind feet and two-headed eagle under front feet is, therefore, known as Gaṇḍhheruṇḍ. At Gāwilgaḍ fort, there is a unique sculpture of Gaṇḍbheruṇḍ on the either side of the Delhi gate. Here the double headed eagle is shown on the back of lion which is holding five elephants in the mouth and another five under feet. It is interesting to note that the small figures of elephants are carved in the wings of double headed eagle. The complex of sculpture shows that the Guṇḍbheruṇḍ. is superior to both - lion and elephant. As already noted the so called double headed eagle was an emblem of the Vijayangar dynasty. So it might have been taken as royal symbol and represented on the forts of Vijaynagar. The same motif might have been adopted by the Bahāmanī rulers as we find such sculptures on forts like Gāwligaḍ, Shivnerī etc.

In the days of Shivaji, the traditional symbol was accepted as we find the figures of Gajaśārdūl(locally known as Gandbherund) in the forts like Raygad,Pratāpgad etc.(Fig.~~13b~~ 15C).

Three Chains of Forts

We have seen so far that a net work of forts, particularly of hill forts, was in existence before the rise of Shivaji. Shivaji added some hill forts and expanded his rule right from Ahivant to Tanjore. For establishing a maritime supremacy, he constructed the forts like Sindhudurg,Kānsā(Padamdurg), Khānderī and strengthened the forts like Vijaydurg, Suvarnadurg, Jayagad, etc. The net work of the forts was divided by him in three main chains which were in fact responsible for keeping his territory safeguarded from the great rival powers like the Mughals, the Siddis, the Portuguese, etc.

The first line of defence

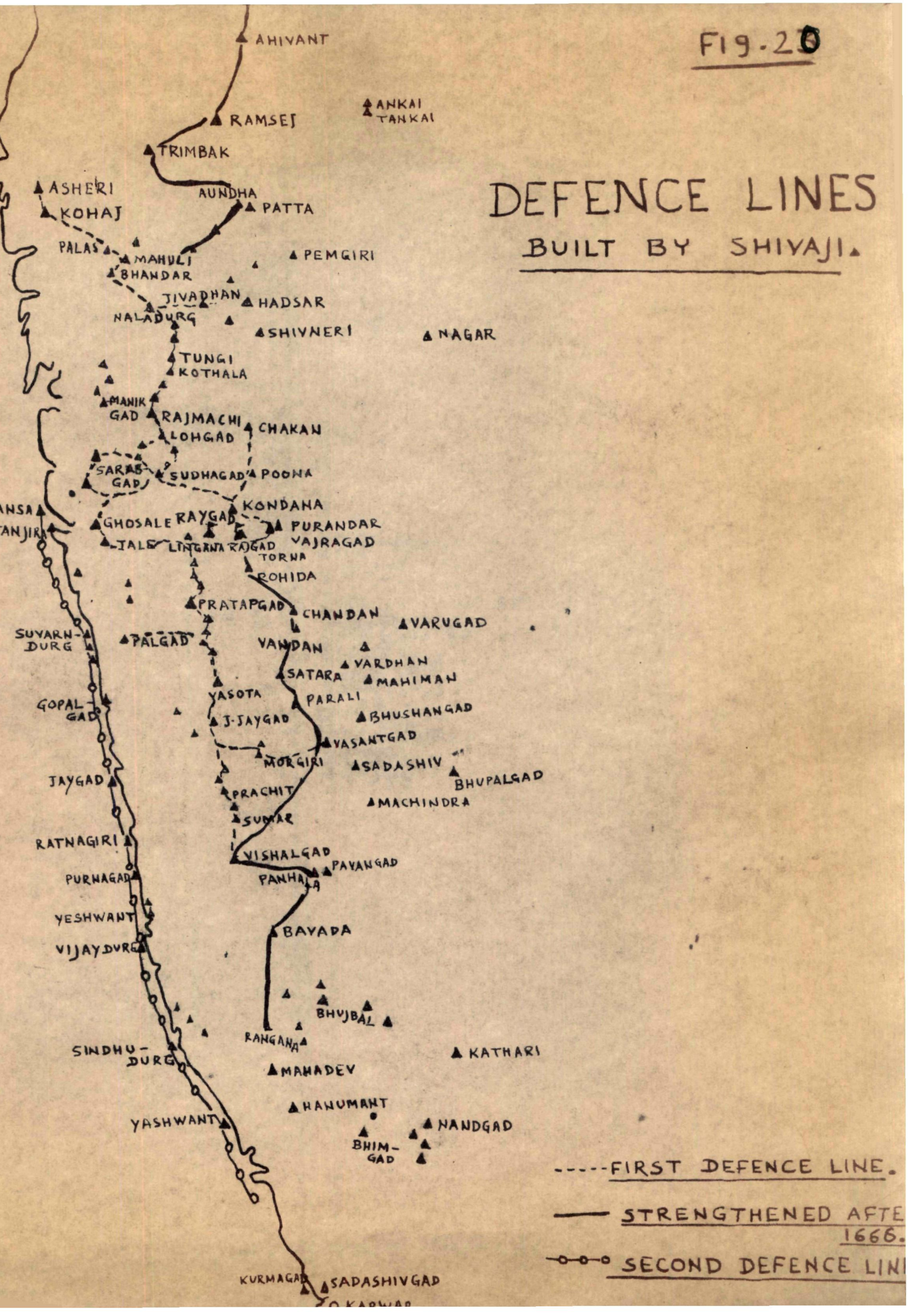
The first line of defence was extended from the fort Aśerī in the north-west to the Viśālgaḍ in the South (Fig. 20). This line included the core of

Shivaji's swaraj which was formed, by the forts Kondānā, Purandar and Vajragaḍ on east, Rājgaḍ, Toraṇā and Rāyagad on South, Tale and Ghosaḷe on West and Sudhāgaḍ on North (Fig. 20).

The fort of Purandar of this ~~time~~ line had secured a unique position in the core of ' Swaraj '. This fort (18-17 N, 74-2 E) lies 782 m above the Poona plain and 1363 m above the M.S.L. It is the last but highest peak in the range of hills and towards the east spurs end, and the valleys widen out and merge in the vast plains. This fertile land towards east, it may be noted, was the part of Bijapur territory. Further, the Purandar fort was the guard-fort of ~~the~~ Poona ~~City~~, the Bopadev pass and the Divā pass. In 1665, Jai Singha, the Mughal Commander, defeated Shivaji by capturing the fort of Purandar and brought the first line of defence under the control of the Mughals. But Shivaji succeeded to retain with him the important twelve forts, seven of which were included in the core. When the protective frame or screen of the first defence line was lost to the Mughals, Shivaji shifted his capital from Rājgaḍ to Rāyagaḍ after his escape from Agra. Upto his coronation, he again brought the first line of defence under his control. For strengthening the curtain of firt line, he added to it several forts, right from Sālher to Māhulī and from Rohiḍā to Rāngaṇā(Fig. 20).

Fig.20

DEFENCE LINES
BUILT BY SHIVAJI.


AHIVANT
ANKAI
TANKAI
RAMSEJ
TRIMBAK
ASHERI
AUNDHA
KOHAJ
PATTA
PALAS
MAHULI
PEMGIRI
BHANDAR
JIVADHAN
HADSAR
NALADURG
SHIVNERI
NAGAR
TUNGI
KOTHALA
MANIK GAD
RAJMACHI
CHAKAN
LOHGAD
SARAS GAD
SUDHAGAD
POONA
KONDANA
KANSA
JANJIRA
GHOSALE
RAYGAD
PURANDAR
VAJRAGAD
TALE
LINGANA
RAJGAD
TORNA
ROHIDA
PRATAPGAD
CHANDAN
VARUGAD
SUVARN-DURG
PALGAD
VANDAN
VARDHAN
SATARA
MAHIMAN
GOPAL GAD
YASOTA
PARALI
BHUSHANGAD
J.JAYGAD
VASANTGAD
MORGIRI
SADASHIV
BHUPALGAD
JAYGAD
PRACHIT
MACHINDRA
SUMAR
RATNAGIRI
VISHALGAD
PAVANGAD
PURNAGAD
PANHALA
YESHWANT
BAVADA
VIJAYDURG
BHUJBAL
RANGANA
SINDHU-DURG
KATHARI
MAHADEV
HANUMANT
YASHWANT
NANDGAD
BHIM-GAD
KURMAGAD
SADASHIVGAD
KARWAR
-----FIRST DEFENCE LINE.
STRENGTHENED AFTE 1666.
SECOND DEFENCE LIN

The second line of defence

This line of defence was created by Shivaji, for two reasons. First was to safeguard his territory against the maritime powers of the Siddis, the Portuguese and the British and secondly for keeping an opening for escape by sea if overwhelmed by the enemy on land. While forming this second line of defence (Fig. 20), Shivaji constructed the forts like Sindhudurg, Kānsā etc. and strengthened the important marine forts like Vijaydurg, Suvarṇadurg.

After Shivaji's departure, Rajaram could extract the maximum benefit of this second line. When communications by land were seized by the Mughals, Rajaram could keep the contact by sea with the Maratha chiefs engaged in fighting against the Mughals. When Ramchandrapant Amatya sent Rajaram's wives to Jinjī, he first sent along the them down to Western coast from Rājāpūr to the port of Honāvar in Karnatak. Thence they proceeded further to Jinji.

The third line of defence

After his coronation, Shivaji started building the third line of defence from Viśālgaḍ to Jinjī(Fig. 21) During his Karnatak expedition he conquered and annexed a portion of Karnatak territory. For keeping this territory safeguarded, he strengthened the forts like Jinjī, Tanjore, Vellore etc. and also built new ones. Thus Shivaji created a third line of defence in order to make swift military operations from Rāyagad to Jinjī.

As this third line of defence was created by Shivaji, Rajaram could retire to Karnatak from Visālgad (Fig. 21) and could defend the 'Swarāj' against the Mughals.

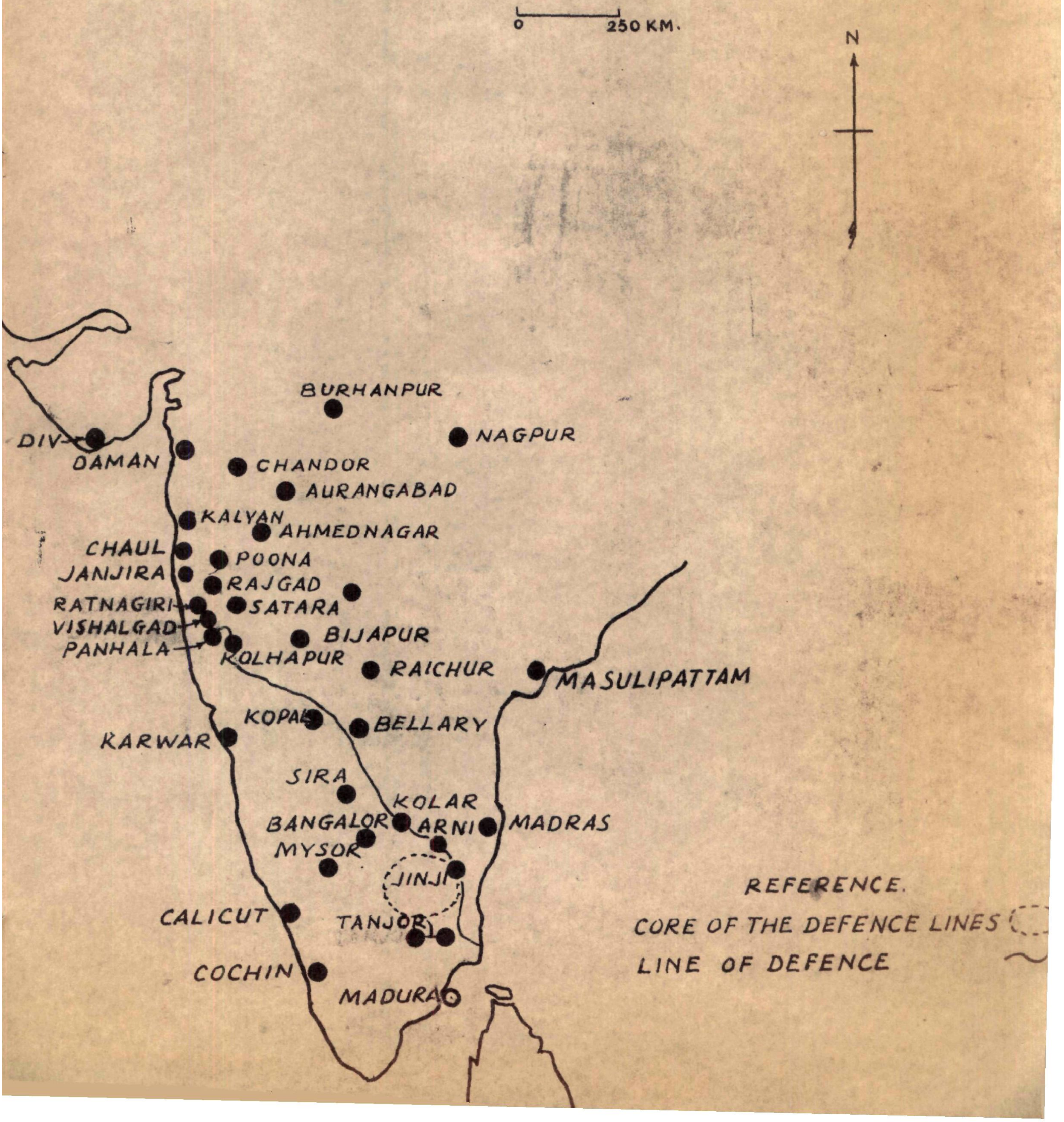
Shivaji's Strategy

In his early times, Shivaji could overcome the Mughals by his war tactics generally known as guerilla warfare associated with the hill forts. We have already seen that the importance of hill forts was considerably reduced during the 16th and 17th centuries particularly after the introduction of heavy artillery. But Shivaji successfully proved the importance of hill forts by introducing new strategy which was utmost foreign to his enemies.

It seems that Shivaji used to keep two types of forces. One was well equipped garrison at every fort under his command and second was roving bands. If any fort was besieged by the Mughals, the garrison from the fort could defend as far as possible from the battlements; and at the same time the roving maratha bands delivered surprise attacks on the besiegers from the unexpected corner. In the teeth

Fig. 2

THIRD LINE OF DEFENCE BUILT BY SHIVAJI


0
250 KM.
N
BURHANPUR
NAGPUR
DIV
DAMAN
CHANDOR
AURANGABAD
KALYAN
AHMEDNAGAR
CHAUL
POONA
JANJIRA
RAJGAD
RATNAGIRI
SATARA
VISHALGAD
BIJAPUR
PANHALA
KOLHAPUR
RAICHUR
MASULIPATTAM
KOPAL
BELLARY
KARWAR
SIRA
KOLAR
BANGALOR
ARNI
MADRAS
MYSOR
JINJI
CALICUT
TANJOR
COCHIN
MADURA
REFERENCE.
CORE OF THE DEFENCE LINES
LINE OF DEFENCE

of such dual opposition, the Mughals, although strong and well equipped, hardly could get success.

Secondly, Shivaji extracted maximum benefit of a net work of hill forts. If any fort was likely to be reduced by the enemy, Shivaji could disappear from the besieged fort to the great astonishment of his enemy. We know how Shivaji escaped from Panhālā to Visālgad when it was besieged by Siddi Johar in 1660.

To sum up, it can be concluded that three main factors viz., 1. a net work of the hill forts, 2. three lines of defence, 3. Shivaji's strategy were responsible for the defeat of the Mughals.

Ramchandrapant Amatya rightly observes;

' This kingdom was created by the late revered and exalted majesty with the possession of forts alone. Forts were built at suitable places in those parts of the country which would not come under his control. Similarly, sea forts were built. With their possession and help, and by making constant punitive expeditions, he acquired a thornless kingdom from Sālherī-Ahivant to the bank of the Kāverī river.'[97]

It is interesting to note that while defining the boundaries of Shivaji's territory on the north, Amātya refers to forts instead of other features of the kingdom.

NOTES

1. AP - P.61.
2. Sabhāsad P.105.
3. Chitṇīs - Pp. 206 - 213.
4. Sivadigvijaya.P.154

   This Bakhar has been composed in 1818.
5. Rajvade VIII Pp.16-17.
6. Chitṇīs. P.207.
7. Śivabhārata. 6.67.
8. Mud fort.
9. Marine or water fort.
10. Gadhī.
11. Forest or desert fort.
12. Hill fort.
13. Naradurg (?)
14. Fort on unusual ground.
15. Hill-cum-ground fort.
16. Mud fort.
17. Desert fort.
18. Fort protected by well equipped army.
19. Ground fort.
20. Bhadra - The hill fort having summit.

    Atibhadra - The hill fort having extensive summit.

    Chandra - The hill fort having extensive base.

Ardhachandra - The hill fort having moderate base

Nābha - The hill fort having acute base.

Sunābha - The hill fort having wide base and which is tapering gradually towards spur.

Ruchir - The hill fort having great height.

Vardhamān - ?

21. South Indian Polity. P.272.

22. Western India. P.75 fn.

23. Ferishta narrates, 'Shirke on the third day, led them through paths so horrible that a male tiger, through dread of the terrors of it, would have become a female; fuller of windings than the curly locks of the fair, and the narrower than the path of love.. The grass was tough as the teeth of serpents ..Death dwelt in the waters, and poison in the breeze. ....After winding, fatigued, weary, and alarmed, this dreadful path, they entered a dark forest, a passage through which was difficult even to the gale, bounded by three sides of mountains, that seemed to have their heads above the clouds, and on the other an inlet of the ocean, so that there was no path to advance and have to go back, but that by which they had entered.

Ferishta's History of Dekkan. P.124.

24. While describing the Afzal's episode, Paramanand writes that when Afzalkhan was asked by his minister about the difficulties that could arise in conducting the military operations, he replied, 'I shall destory those forests which are full of trees of huge height and the shelter places of the enemies that created a great terror to all of you.' -

Śivabhārata. 6 . 67.

25. Śivabhārata. ~~P~~.23:65.

26. Ibid, 28. 77-92.

27. AP, P.69.

28. AP, P.72-72.

29. SCP, P.159.

30. Chitrogupta, P.127

31. Sabhāsad, P.90.

32. Ibdd, P.90.

33. Ibid, P.105.

34. Ibid - P.90 ~~Sen S.N. Sivachhatrapati.~~

35. ERS, Vol.II, 251 (Pp.137 -138)

36. Heras H. The Marathas in southern India according to Jesuit sources.
Historical miscellany, no.31. P.13.

37. Ibid, P.13.

38. Sabhāsad, Pp. 26-27.

39. Ibid, P.27.

40. Ibid, P.27.

41. Ibid, P.27.

42. Ibid, P.27.

43. AP, P.69.

44. अतोऽस्ति दुर्गमें स्थानमास्थाय जगतीपते ।
यतत्व जगती जेतुं किमशक्यं शिवस्य ते ।।

Śivabhārata - 16.59.

45. संति ते यानि दुर्गाणि तानि सर्वाणि सर्वथा ।
यथा सुदुर्गमाणि स्युस्तथा सद्यो विधियताम् ।।

Ibid. 16.63.

46. RE, P.38.

47. AP, P.67.

48. RE, P.44.

49. Ibid, P.44.

50. Ibid, P.43.

51. AP, P.68.

52. RE, P.44.

53. Thana dist. Gazetteer, P.13.

54. AP, P.68.

55. Ibid, P.68.

56. Ibid, P.68.

57. SCP, P.159.

58. SCP, P.160.
The Paḍ-koṭ is commonly misunderstood as the inner or second wall of a fort.

59. Ibid, P.160.

60. Ibid, The word 'Jangyā' is probably derived from 'Jang', a Persian word, denoting war.

61. RE, P.44.

62. Ibid, p.44.

63. AP, P.68, RE P.44.

64. AP, P.68. RE P.44.

65. BDCRI, Vol.XXII P.58.

66. GKD. (ABK- XXVI - 12)

67. Poona Gazetteer, P.139.
68. AP, P.70.
69. Poona Gazetteer, P.249.
70. RE, P.46.
71. Ibid, P.45.
72. Ratnagiri Gazetteer, P.323.
73. Ibid, P.323.
74. RE, P.45.
75. RE, P.45.
76. Khare G.H. Swarajyātīl Teen Durg, P.2.
77. Ibid, P.2.
78. SCP, P.159.
79. Masir - P.284.
80. SCP - P.159.
81. Ibid, P.159.
82. Sabhasad, P.63.
83. Ibid, P.64.
84. AP, P.10.
85. Kāvyetihās sangrah - Patre, Yadi, etc. P.34.
86. Toy Sidney - The fortified cities of India, P.51.
87. Ibid, P.51; Kille Purandar, P.82
88. Purandare Daftar Vol. III, P. 129

89. Inscription at Sholapur fort.
Aitehāsik Sfuṭ lekh. Part 2 - Pp.90-91.

90. SCS. Vol.III - 609.

91. Toy Sidney - Op. cit. P.51.

92. Ibid. P.51.

93. Banerjea J.N. The Development of Hindu Inconography, P.326.

94. Ibid, P.326.

95. Progress report of the Archaeological survey of Western India - (1905) P.37.

96. Ibid, IA Vol.XX P.308.

97. RE, P.38.

Chapter V

Administration of Forts

Shivaji paid much attention to the administration of forts as it consitituted one of the major aspects of the state. Amatya rightly observes that Shivaji could create a kingdom only because of forts.[1] The 91 Qalami Bakhar says, 'just as ships and boats are strengthened with nails of iron, so by means of forts and redoubts the kingdom is strengthened and the ryots safeguarded.'[2] Further it is mentioned that 'the forts are for the protection of land and people.'[3] We can get the clue of Shivaji's policy towards the forts in his excellent administration of forts. In his words quoted in 91 Q. Bakhar, 'I have an enemy like the Emperor Aurangzeb. If, God forbid it, he decides on (active) hostility and spends his whole life in warfare (with me), the conquest of these forts would be beyond his power. In fact, forts are the defendants and guardians of the kingdom and the royal power.'[4] In 1664, Shivaji wrote a very strong letter to the officers of the Emperor. In this letter he writes, 'my home here is not like the towns of Kalyani and Bedar which could be easily assaulted and taken. My country has lofty hill-ranges, two hundred leagues in length and forty in breadth and is well protected by sixty strong forts newly built... It is my duty to guard my land and I will do it.'[5]

Chief officials of the fort

According to Sabhasad, the three major officers at a fort under Shivaji were Havāldār, Sabnīs and Sarnobat,[6] who looked after the military and civil affairs. He also hints that they should be of equal status.[7] But it seems that the sarnobat[8] was subordinate to the Havāldār. If a fort was of utmost importance or if it possessed ~~with~~ redoubts or 'Māchis', the sarnobats were appointed as subordinates to the Havāldār to look after the military affairs. For example, there were three independent sarnobats for three Māchis of Rājgad fort.[9] Raghunath Pandit speaks of Havāldār and Kārkhānis, but he is silent about Sarnobat.[10] Sabhasad too mentions Kārkhānis as an officer having the portfolio of storage and its account. Amatya in his treatise 'Ajñāpatra', refers to four main officials vis. Havāldār, Sarnobat, Sabnīs and Kārkhānis.[11] Elsewhere he mentions that if Havāldār of a fort passes away while performing the duty of the 'Sarnobati', his services should not be offered to his son or his any other relative.[12] So it may be presumed that the post of a sarnobat was not provided to each and every fort. Instead of sarnobat, it seems that the Tatsarnobats were generally appointed to look after the defence of ramparts.[13] The Kārkhānīs was undoubtedly a responsible officer and from the memorandum drawn up in the first year of the coronation era, it appears that the Kārkhānīs too enjoyed an equal status of the Havāldār and the Sanbīs.[14] It may be, therefore, concluded that the three major officials at the fort were the Havāldār, the Sabnīs and the Kārkhānīs. All these three officers were responsible for the administration of fort and no single officer was able to surrender the fort to any rebel or miscreant.[15] In this manner, according to Sabhasad, a new system was introduced (by Shivaji).[16]

But it is often argued that this was not a new element that Shivaji introduced in the fort administration. Even Muslim rulers implemented this method. However, it must be admitted that Shivaji alone realised the importance of hill forts in the system of his state, and paid much attention to its organisation. Prior to Shivaji the Bahāmanī rulers did not pay serious attention to the organisation of hill forts. On the contrary they allowed the local Watandars to look after the administration so far as the jurisdiction under their respective forts were concerned. These local Watandars often used to pay the respective dues and sometimes tried to behave independently.

Towards the end of the fifteenth century, the Bahāmanī Kingdom was parcelled out into five separate branches. The local Watandars siezed this opportunity and tried to establish their supremacy in their respective jurisdictions. It may be noted here that the hill forts, particularly in the Western Ghats, were in the hands of the Maratha Captains. These Maratha chiefs were practically independent or rather nominally dependent upon the Muslim rulers.

It is interesting to note how Shivaji exploited this loose administration of hill forts under Muslim rulers. In his earlier activities, he secured the fort Chākan, from Firangjī Narasālā, the Mughal official of the fort, confirming him in his original post when he assured to serve for his Swaraj.[17] The fort Koṇḍāṇā[18] was also captured by Shivaji, probably in 1647, by means of intrigues through Deshpande of Khedebāre.[19] He also captured the fort Purandar in 1648 by using the same diplomatic tactics.[20] Thus Shivaji secured such important forts like Koṇḍāṇā, Purandar and Chākan only because of the lack of administration of forts prevailing under the Muslim rule. As shrewd and

and far-sighted he was, Shivaji did not allow any room for loopholes in his fort administration for which he preferred not one but three officers of equal status, who were conjointly responsible for civil and military affairs, and who would act in unison. He was aware of the fact that loss of a fort weakens the state power. He could capture forts in succession from the Ādilshāhī kingdom because of the mismanagement and general indifference shown by the rulers. He had realised the fact that it was not enough to capture a fort, but to retain it. This required sound administration. Shivaji, therefore, did not spare any pains in introducing a sound system of administration of forts.

Three officers

As we have already seen that there were three major officers of equal status at every fort. They were holding special departments and responsibilities. Among them the Havāldār was the head of the garrison within the fort. As he possessed his own seal he was called 'Mudrādhikārī'[21] He was holding the charge not only of fort alone but also of the sphere of influence or surrounding area of the fort (Gherā) consisting of villages and open fields.[22] He was authorised to establish a 'Metā' (Watch post) in his power. In emergency, if required, he was allowed to issue the orders for vacating any village under the jurisdiction of fort.[23]

If a fort was of utmost importance, a number of Havāldārs were appointed. In such case the chief Havāldār was called 'Sarhavāldār '.[24] At Purandar fort Kondāji Bhole was sarhavāldār in 1687.[25]

The Sabnīs was the superintendent of accounts and in charge of the muster roll. The Kārkhānis was the chief officer of commissariat.[26]

Qualifications : Caste or Merit ?

According to Sabhasad, ' The Havāldar and the Sarnobat should be Marathas of noble families, the Sabnīs should be Brāhman, while the Kārkhānīs should be Prabhu.[27] Chitnīs and other chronicles support Sabhasad in this respect.[28] Fryer tells us that into the places of ' Trust and Authority ' he (Shivaji) puts only ' Brahmins ' (Brāhmanās) or their substitutes, viz., ' pundits '(Prabhu).[29] Amatya also recommends that the Havāldār and the Sarnobat should be noble Marathas who are loyal, hard working but not corrupt and sluggish.[30] According to him the Sabnīs and the Kārkhānīs are the clerks appointed by the rulers. They are also responsible officials as the Havāldār and the Sarnobat.[31] But Amatya is silent about their castes.

About this management Dr. S.N. Sen observes, ' Shivaji had clearly laid down that the three officers must be dissimilar in caste '[32]. But this view is not wholly acceptable. Shivaji and his successors were not particular about castes while appointing their officials. Trimbak Bhaskar, a Brahman, was asked by Shivaji ~~in~~ to look~~ing~~ ~~after~~ after the fort Panhālā.[33] We also know that the Havāldār of Purandar fort during the time of Jai Singh's siege was Murar Baji Deshpande, a Prabhu.[34] Narhari Rudra, a Brahman, was appointed by Shivaji as the Havāldār of the forts viz. Sājarā and Gojarā[35] which were fortified by him during his Karnatak expedition. Ābājī Vishvanath Prabhu was the Havāldār of Toraṇā in the year 1694.[36] It seems that Shivaji and his successors might have laid down this rule for attracting the people of particular genius. Traditionally the Marathas were the best warriors, while Brāhamans and Prabhus were adept in the art of writing and keeping accounts.

Appointment

First preference was given to merit while employing the officials. Amatya says that the Havāldār and the Sarnobat should be appointed if they are loyal, hard-working, non-covetous and wakeful. They should be able to extract the royal work (from the subordinates). They should consider that the fort is the dearest treasure entrusted to them by their masters, and so it should not be surrendered as long as they are alive.[37] In 'Budhabhusanam', It is mentioned that the Havāldār should be of unyielding nature. He must be brave, a man of family, noble and devoted to his duties.[38]

Sabhasad hints that the Havāldār and Sarnobat should be appointed, if anybody of royal personal staff agrees to stand surety for them.[39] Such type of surety was certainly useful for ~~the~~ a King to keep the activities of the military officials under his control. The same care was taken while appointing any Brāhman in the post of Sabnīs. Sabhāsad says that a Brāhman should be appointed Sabnīs and a Prabhu Kārkhānīs, if they are well acquainted with personal staff of the King.[40] Here it may be noted again that not influence but surety was considered for the appointment to key positions. It is expected that both of them should carry out their duties laid down by a king precisely and honestly.[41]

From the above account it is clear that maximum care was taken while appointing the responsible officials on every fort. Shivaji used to test these officials. ~~An interesting anecdote described by the Chitnis reveals how Shivaji took the test.~~

~~these officials.~~ An interesting anecdote described by the chitnis reveals how Shivaji took the test of a Havāldār at Panhāḷā at night and how he appreciated his sense of duty.[42] If the Havāldār or any other officer failed in such test, he was degraded or dismissed.

Duties - 1. Havaldar

Although three officers enjoyed equal status, the prominent among them was Havāldār. He was 'Mudrādhikārī' (one ~~who~~ possessing his own seal) and was responsible for the entire administration of the fort. He was to keep the keys of the fort with him. Every evening he was to lock up the gates and to confirm whether the gates were property secured.[43] During night he was not to allow any outsider, whether friend or foe, into the fort.[44] In the morning it was his first duty to open principal gates personally.[45] He had to always keep watch on all the watch posts.[46]

The Havāldār was to put his seal on the order issued by the Sabnīs.[47] Besides, he was to put his seal on the accounts prepared by the Kārkhānīs.[48] He was also supposed to execute judicial duties under his jurisdiction. The Kārkhānīs and the Sabnīs assisted him in his judicial duties, and they used to endor~~es~~se his verdict by acting as juries.[49] He was paid 125 Hons, probably per annum for his services.[50] But it seems that the scale of salary varied from place to place. Ramachandra Nilakantha, the Havāldār of Sindhudurg, was drawing the salary of 100 Hons.[51]

It was expected that the Havāldār should be well-versed in firing matchlocks and guns.[52] Further it was one of the important duties of the Havāldār to visit the magazines periodically. He was to take out powder, rockets, grenades and other explosives for drying them. He was to store them carefully and to seal ammunition.[53]

Sabnīs

The Sabnīs was in charge of accounts. He was to issue all the orders of expenditure under the seal of the Havāldār.[54] It was his duty to prepare the daily accounts of cash and treasury department and to obtain the Kārkhānīs's endorsement and Havāldār's seals in token of their approval.[55] He was also supposed to issue orders regarding accounts, etc., from fort to its jurisdiction (Gherā). For such orders also the Havāldār's seal and the Kārkhānis's approval were indispensable. He maintained the muster roll for the soldiers on the fort. As and when required, he was allowed to levy taxes in the area under the fort in order to meet the needs of the fort.[56] For issuing such orders, again the Havāldārs seal and the Kārkhānīs's approval were necessary.[57]

The Sabnīs was also expected to attend the correspondence with the government or with various departments. For every letter addressed to the government, the seal of the Havāldār was essential.[58]

In addition to these duties of the fort proper, he was supposed to prepare an estimate of revenue of the 'Gherā' i.e. the area under the influence of the fort. He was supposed to issue orders about revenue after obtaining the Havāldār's seal and the Kārkhānīs's approval.[59]

Kārkhānīs

The Kārkhānīs was in charge of the stores of the fort. All accounts of assets and liabilities were maintained by him. He prepared statements of such accounts and obtained the endorsement of the Sabnīs and the seal of the Havāldār ~~in~~ as token of their approval.[60] He was expected to distribute the articles as and when required. The orders in respect of goods were to be issued by him under the seal of the Havāldār and approval of the Sabnīs.[61] Further he was supposed to take charge of female slaves, boy servants, horses or cattle obtained as spoils of war or otherwise.[62] He also supervised the construction work of buildings on fort.[63]

The clerk of the Kārkhānīs was supposed to prepare accounts of naval stores under the supervision of the Sabnīs. He was also to verify the muster roll maintained by the Sabnīs.[64] On the contrary, the clerk of the sabnīs was entitled to be present while making the distribution of stores by the Kārkhānīs for verification.[65]

Sarnobat

The posts of the Sarnobat were created particularly for major forts. The Sarnobats were the deputy Havāldārs and were expected to assist the Havāldārs in military matters. Generally the sarnobats were appointed in charge of the Māchīs. At the Rājgad fort, there were separate sarnobats for the administration of the three Māchīs. Like Havāldār, the sarnbbat too enjoyed the prevelege of having his own seal. It indicates that probably the minor forts were kept in the hands of the sarnobats. As a matter of fact both the posts viz. the Havāldār and sarnobat were identical and sometimes the Havāldār of the fort was also called Sarnobat. For instance, Netaji Palkar, the Havāldār of Purandar fort,[66] was also mentioned as Sarnobat.[67]

The Havāldārs of Māchīs

When the Māchī was as big as fort, perhaps an independent Havāldār was appointed to look after the Māchī.

Such a Havāldār was perhaps the assistant of Sarhavāldār or the Chief Havāldār. The Havāldārs of Māchīs held their separate sub-divisions and were allowed the make correspondence independently. Shankarājī Nārāyan Sachiv, in his letter dated 4th August 1701, requested to the Havāldār of Padmāvatī Māchi to make the necessary arrangements to provide the shelter for the people of Trimbak Malhār, a Kārkhānīs of Chandangad.[68]

Other officials on forts

Taṭsarnobats - The Taṭsarnobats were appointed for the protection of the ramparts.[69] If a fort had a curtain wall of considerable length, the number of the Taṭsarnobats was usually increased. There were four to six Taṭsarnobats at fort Purandar.[70] We learn that Shivaji despatched four Taṭsarnobats in the year 1677 to Vellore on demand from Nāgojī Bhosale, the Havāldār of Vellore fort.[71] These Taṭsarnobats were entitled to receive a salary of 12 Hons per year.

Imāratī Havāldār - Imāvatī Havāldār was an idependent post for the execution of building work on fort. So far as the ordinary hill forts were concerned, minor construction work was generally carried out under the supervision of the Kārkhānīs. Shivaji constructed numerous buildings on the forts of Rājgaḍ and Rāyagad.

From inscription at Rāyagad we learn that several buildings including a famous temple of Jagadīśvara were build~~ing~~ by Hiroji Indulkar.[72] He was holding the post of Imāratī Havāldār.[73]

Skilled labour/craftsmen

Besides the Imāratī Havāldār, a mason was also appointed for the structural construction.[74] The post of pioneer (Beldār)[75] was created for the supervision of building work in progress. But it is not known whether they were appointed on permanent basis or on daily wages. Amātya includes mason (Pātharvaṭ) in the list of craftsmen required on the fort.[76] In the Budhabhūśaṇam it is mentioned that the provision should be made for the residence of mason (Shilpī).[77] The other craftsmen stated in the list supplied by Amatya are Brahmans, Astrologers, Physicians who are versed in mineral medicines and those in herb-medicines, Surgeons, Exorcists, wound-dressers, Blacksmiths, carpenters, and cobblers, etc.[78] Amatya suggests that there is no necessisity of these craftsmen on an ordinary fort. It is mentioned in the Budhabhuśaṇam that the charioteers, the veterinary surgeons and the Brāhmans should have their dwellings on fort.[79] But here again the hint is given that the craftsmen who are really useful should be allowed to stay on the fort.[80] Amatya hints that these craftsmen should be always well-equipped and when required, they should carry out their duties. In case, if there is no work for them, they should be engaged in other civil duties like collecting revenue dues, etc. But they should not be kept idle.[31]

It appears from the above account that the general policy of the Maratha rulers was to provide several opportunities to the talented craftsmen and make 4 use of their technical duties whenever required. But these craftsmen were not dismissed or discharged as soon as their jobs were over. Instead they were engaged in other civil duties suitable to their respective positions.

Unskilled labour

The unskilled labour was generally engaged on daily wages, Whenever there was any new construction work or repairs on the fort. It is pertinent to note that Shivaji was liberal enough to pay adequate wages. English Factory Records tell us that Shivaji often tempted workmen from Bombay with offers of better wages and better lodging. In a Bombay letter of March 1672 it is mentioned that 'Sevagee being abuilding and giveing great wages, hath tempted severall of our workmen to run away.'[82] Like unskilled labour Shivaji used to offer better wages to skilled labour and craftsmen also. In the document of 1671-72, it is mentioned that 'the clumsy or worthless craftsmen cannot produce output in return to the wages paid to them.'[83] It is interesting to note that the culprits kept on the forts like Rājgad were also used as labourers to carry stones, etc.[84]

Garrison

For ordinary fort, strong garrison was not required. It appears that a contingent of five hundred was normally maintained on the fort, but in some exceptional cases a strong force was allowed. The persons employed in garrison were known as 'gaḍakarīs.' According to Sabhāsad, of every ten men of the garrison to be stationed on the fort, one should be made a Naik (Chief). Remaining nine should be placed under him as soldiers (Pāik).[85] In the garrison, matchlock firers, spearmen, archers, light-armed men,[86] etc. should be recruited. If the fort was besieged by the enemies, the number was increased two or three times the normal strength as per requirement. On Purandar fort, even in peace time, the number of garrison was 1000.[87]

The 'gaḍakarīs' were the local people and were supposed to carry out the duties like protection of gateways, watch and ward duties of strategic posts (metās), supervision of ramparts, etc. Here it may be noted that these gadakarīs were the ordinary servants on the forts before the rise of Shivaji.

Regarding the recruitment of garrison, Amatya suggests, 'the relations of the Sardārs (officers) of the cavalry, or the persons recommended by them, should not be positively entrusted with the work of the forts. Similarly if the~~y~~re are one, two, three relations belonging to one family who are well versed in the management of forts, then the work of forts has necessarily to be entrusted to them. For it is very difficult to get men for work in forts.'[88] Further he warns, 'but they should not be placed in forts which are near each other. They should be given work and made to serve in distant forts, from where one is not able to join hands with others, and between which there are other forts.'[89]

It seems that the maximum care was taken to avoid the riot or revolt.

The garrison in fort was also supposed to attend the civil duties, whenever necessary, in the premises of the fort.

Bārgīrs -

In Persian 'Bārgīr' means a burden taker, but in the Maratha Army the term was used for a soldier who rode a horse furnished by his employer. It is not known with certainty whether there were 'bargirs' on the hill forts, but that was not impossible as well. The ground forts, or hill-cum-ground forts maintained special troops of bārgīrs. We learn from one document that Shivaji despatched seven bārgīrs to the fort of vellore.[90] Amatya suggests that the bārgīr working on the fort should possess knowledge of firing gun and matchlock.[91] Elsewhere he says that they should be appointed, if they were found brave and trustworthy.[92] As regards the wages of these bārgīrs, though a general rule cannot be laid down, yet from some accounts, it appears that the rate of wages was about nine Hons per year.[93]

Other minor servants

1. Nāikwādī

Nāikwādīs were the officers of the smaller detachments. Their posts were created to assist the Taṭsarnobat in his work. We find the officers called Nāikwādīs in the Ādilshāhī and Nizāmshāhī states. We learn from 'Burhāne Māsir' that the persons of Nāikwādī caste were working in the garrison at Narnāḷā fort (dist. Akola) in the year 1573.[94] From the factory records at Surat it seems that these Nāikwādīs sometimes created trouble in the administration of forts during the period of Ādilshāhī.[95] Amatya says that the Nāikwādīs should be appointed if they are brave and trustworthy.[96]

2. Rajputs

The Rajputs too were recruited in the service of the fort. For their employment, Amatya hints that they should not be appointed without a 'Royal Grant'.[97] Further their proportion should be 10% of the total garrison.[98]

Sweepers

The sweepers or mehatars were also appointed on forts to maintain sanitation.[99]

Temporary clerks

If any pending work was to be disposed of early, the posts of temporary clerks were created. During his Karnatak expedition in 1677-78, Shivaji captured several forts. Many of them were rebuilt by him. He also constructed some new forts of strategically important places. For the reorganisation of the administration of the forts on the Karnatak plain, he created several new posts of Tatsarnobat, Bārgir,[100] Imāratī Havāldār[101] etc. He also appointed one temporary clerk by name Timājī

Nārāyan and despatched him to the fort Valgudānūr for disposing of the pending work there at on a monthly allowance of three Hons.[102]

General qualifications

Amatya suggests that a person should not be kept in service, if he is unsteady, thievish, murderous, capricious, fond of drinking and intoxcating drugs, addicted to the use of Bhang and Perfidious.[103] He should be appointed only on assurance of his good character,[104] from a responsible person. He insisted on character because a fort was likely to be lost to the enemy due to the misbehaviour of a single person.

Administration of Māchī

Māchī was an important limb of the fort. Loss of a māchī was tantamount to the loss of fort. Hence adequate precautions were taken to protect the māchīs. Although the administration of Māchī was entrusted to the three major officers of the fort, a separate post of sarnobat or Havāldār was created for the defence of the Māchī. The Sabnis and the Kārkhānīs of the respective forts were supposed to Maintain accounts of cash and stores alloted to the Māchī. A separate Karkoon assisted the Sabnis in keeping the accounts of the Māchī.

The Metās or watch posts were established at strategic points from where one could watch the movement of persons descending or ascending the fort, privately or secretly. The watchmen of such Metās were generally recruited from the Rāmoshī, the Koḷī, the Beraḍ and the Mahār communities. Their appointments were hereditary. Being the tribal people, their knowledge of hills and forts was first rate, and therefore they were best suited to the posts of watchmen.[106] It is said that Shivaji was the first ruler to employ Rāmoshīs as watchmen of his fortresses. Shivaji extracted maximum advantage of their geographical knowledge by providing permanant jobs to them.

Watche and ward duties

A systematic arrangement for watch and ward duties was introduced, particularly in the case of hill forts. At night, the watchmen, while conducting their duties of watch and ward from the main fort, used to shout loudly to which a response in the same manner was given by the watchmen stationed on the Metās. The same arrangement was made in case of the Māchīs also. At important forts a metallic vessel for giving sounds (tās) was used. We learn from one document that Krishṇājī Bhaskar Bhat was specially appointed on the Purandar fort for this purpose.[106] On the Viśālgad fort, one hillock is known as 'tās ṭekaḍī' from where it is said that the sounds were given at regular interval.[107] It is interesting to note that 'tāsekhānā' (the place from where the sounds were given) was sometimes included in the eighteen departments of Shivaji.[108]

The rooms known as 'Alangā' were the retiring rooms for watchmen on duties.[109]

Hereditary rights

Shivaji was not in favour of making military offices hereditary. Merit alone counted while making appointments for such posts. Amatya says, 'if the Havāldār of a fort dies on duty, his post should not be entrusted to his sons or relatives.'[110] The list of the Havāldārs at Rohiḍā fort (Vichitragaḍ) provided in the document reveals that the Havāldārs appointed in succession were not from the same family.[111] Although the hereditary right was rejected, it may be noted, the sons of responsible officials were generally consoled by entrusting other work according to their ability.[112] Certain documents will support this statement. When Sambhājī Silimkar was slain in a fight against the Mughals on the Rājgaḍ fort, his son was granted one village in 'Inām' in the year 1704.[113] In 1700, Shivaji II released the grant to Matyājī Ingawale, whose father Shidoji Ingawale died on duty at the fort of Sajjangaḍ.[114] In 1703, Shivaji II released the grant to Girjojī Yādav, whose brother Anoji Yādav showed great skill in constructing buildings on the Pāvangaḍ and the Pratāpgaḍ.[115] It is mentioned in the same document that Shivaji was pleased when he inspected the work done by Anôjî on the Pāvangad fort, and made a generous gift of 5000 Hons. to him.[116]

A curious reference occurs in one document of the year 1695 which throws sufficient light on the general policy laid down by the Maratha rulers in order to provide suitable jobs to the closer relatives of an officer on the fort. Ābājī Vishvanāth Prabhu, a Havāldār of Prachaṇḍgaḍ fort was slain in the fight with the Mughal chieftain Shahābuddin, who besieged the fort. His son Janaji Abaji, therefore, was granted a village 'Jātade' in the Muthā Khorā. Further the post of Sabnīs drawing 700 Hons per year was also offered to him.[117] Here it may be noted that the post of Havāldār occupied by his father was not given to him.

Regarding the appointments of the watandārs who occupy the territory lying about a fort, Amātya suggests that the Deshmukhs, the Deshpandes, the Patils, the Kulkarnis, the Chaugules, and other hereditary watandars should not be given services on a fort near their respective 'Watans'. If such services were entrusted, the watandars would be disloyal and could divulge secrets for sake of their own interest.[118] From the above account it is clear that utmost care was taken to minimise the chances of treachery often caused by the officials on the fort. Amātya suggests that such watandārs should be employed on the forts which are ten or five villages distant from their vatan.[119]

Transfers of officials

It seems that the Maratha rulers laid down rules for periodical~~s~~ transfers of officials on the forts. Amatya says, 'Havāldār should be transferred after three years, Sarnobat after four years, whereas Sabnīs and Kārkhānīs should be transferred after five years.'[120] Here also great care was taken, particularly about the transfers of military officers. It is not known whether those rules were strictly observed. The list of Havāldārs produced in certain documents sometimes shows that the names of certain Havāldārs reappeared.[121] So it may be presumed that these Havāldārs were posted or transferred to other forts during the interim period. We learn from contemtoray records that Bājī Gholap was Havāldār at Manohargad fort in 1666.[122] Again we learn that he was Havāldār on the Purandar fort in 1683.[123] Thereafter he was holding the post on the same fort for a period of nearly 15 years.[124] So it seems that periodical transfers were not made as a rule. From the 91 Q. Bakhar we learn that Shivaji transferred Kanho

Mor Deo from the office of Majumdār and conferred it on Anoji Malkhare.[125] The reason for the transfer of the place, however, is not mentioned.

According to Amātya the changes should be made frequently in respect of the posts like the Sarnobat and the Bārgir.[126] Our records, however, do not lend support to this principle, which might have been generally accepted as a matter of policy.

System of Payment

Sabhasad furnishes the nature of system that was introduced by Shivaji for payment of the military officials. He says, 'Mokāsā Mahāls or villages with absolute rights should on no account be granted to the (men in the)army, the militia (Haśam) and the fort establishments. Every payment should be made by 'varāts' (kinds) or with cash from the treasury. None but the Kārkuns had any authority over the lands. All payments to the army, the militia and the fort establishment should be made by the Karkuns.'[126A] This system could not continue during the period of crisis after the death of Shivaji, owing to the changed circumstances.

Promotions

If any Havāldār showed tremendeous courage (during) during the siege of a fort, he was promoted to a higher position. Shivaji generally used to select his lieutenants from the cadre of Havāldārs. So there was great scope for the Havāldārs in that period to achieve higher promotions by showing great skill in war. Netaji Palkar, the Senāpatī or the commander-in-chief of Shivaji was a Havāldār of the fort of Purandar in his early career.[127] Narharī Rudra was appointed by Shivaji as Havāldār of Sājārā and Gojarā forts in the Karnatak.[128] In 1702 he was promoted to the post of commissioner of Koppal province[129] Kadatoji Gujar was the Sarnobat on the fort Rājgad. As Sarnobat he acquitted his duties to the entire satisfaction of his master and his merit was recognised by promoting him to the post of senāpati.[130] Like the Havāldārs and the Sarnobats, the Sahnis' were qualified for the post of the Sarkarkun the chief of a division.

Punishments

Amatya says, if while performing the duties on the forts persons are found to have committed robberies, murders, bribery, and other offences, they should be discharged before the term of their service is completed.[131] Punishment should be given according to the nature of offence committed. If it is found that the officer of the fort or anyone else is harbouring an evil desire of betraying the place, he should be immediately removed without conducting any enquiry and presented to the king.[132]

Further he states that in the royal presence he should be judged properly, and if the charge is proved against him he should be immediately beheaded without showing any mercy.[133] Amātya adds further that his head should be severed from his body and be displayed on every fort and drum should be beaten proclaiming that such is the punishment for those who commit such offences.'[134]

For want of authentic contemporary records, it is difficult to show whether such severe punishment was given to any treacherous officials working on the fort. It is reported in the 91 Qalami Bakhar that Firangjī Narsālā, the Killedar of the Bhupālgad, surrendered the fort to Sambhaji when the latter joined Diler Khan (in 1679). Shivaji then seized Firangji and flew him away from the mouth of a gun.[135] The author of 'Śivadigvijaya' supports this fact.[136] It is further reported in the 91 Qalami Bakhar that Bhalerao, the Sabnīs of the Bhupālgad fort was beaten severely and dismissed from his service.[137] But it is very difficult to prove this incident for want of original documents or other contemporary records.

In 1665, Keso Nārāyaṇ, a Sabnīs of the Rājgad fort, misappropriated a large sum of money from the public fund when the officers of the forts were busy elsewhere.[138] How Kesa Nārāyaṇ was punished is, however, not known. In the year 1663, a revolt took place on the fort Sinhgad. On receiving this news, Shivaji postponed his programme of marching into the Konkan and despatched Moro Trimbak Peshwā and Ābājī Sondev to Sinhgad for conducting an enquiry about the rebels. The results of the enquiry are not known as the contemporary records are silent on this point.

The punishment of hurling down from a precipice (Kaḍeloṭ) was in practice. During the time of internal crisis (1680 - 1689), it is reported that Yesājī and Sidojī Farjand were hurled down from a precipice of the Rayagad[139] (Takmak Point). But we find such cases rarely.

In 1704, Duduskar, the official on the fort of Koppal became disloyal and as such Trimbakrāo Narharī Sabnīs was despatched to punish him.[140] What type of punishment was given to him is not known.

The crime of adultery was treated as cognizable. In 1675, one female coolie working on the Rāyagad fort was found guilty of adultery and the state imposed fine on her.[141]

During the period of Sambhaji, one disloyal Sarjārao Jedhe tried to prove his innocence by writing a letter to Santājī Nimbālkar, a Havāldār of Rohiḍā fort. Sambhaji severely condemned Sarjārāo and warned him for keeping contact with the officials of the fort.[142]

Although Amātya recommends severe punishment for criminals, it appears from one document of 1691, that during the period of Rajaram the influential persons, if guilty, were not punished but simply warned and excused so far as their first crimes were concerned.[143] The reason for this liberal attitude is found in the reversal of the administrative policy of Shivaji. In the critical period of Aurangzeb's campaign, when he adopted the policy of terrorisation, massacres, bribery, and forced conversions, Rajaram and his advisers found that the administrative system, although prudent, was unworkable. The Maratha state was actually in the melting pot, and Rajaram initiated the system of feudal decentralisation. He also adopted very lenient view in judicial field as he wanted to invest all the Maratha captains, each acting on his own account.

During the period of Shivaji II, the blame was imposed on Badhāi and Khandāi Berad who surrendered the fort Sinhgad to the Mughals suddenly and retreated themselves to the fort Rajgad. Further they were warned to oppose Aurangzeb until the breaking up of monsoon.[144]

It seems that it was impracticable to inflict severe ~~practicable to inflict severe~~ punishment recommended by Amataya, particulary during the period of independence.

Even the Muslim rulers were not so particular to punish the officials according to the judicial code. In 1689, after getting the fort Rājgad, Aurangzeb appointed Abdul Khair

Khan as the Havāldār of the fort. When the Marathas again seized the fort the said Havāldār surrendared it and retreated to the camp of Firuz Jang. Aurangzeb dismissed and sent him compulsarily to Mecca.[145] So it is clear that Aurangzeb too adopted a lenient policy towards his officials who were not always in a position to caputre or retain forts.

Provision of grains, etc.

During the period of Shivaji, great care was taken for the provision of grains and other commodities required for the garrison within the fort. The fort was provided with a granary known as Ambarkhānā.[146] A curious reference occurs in the letter of the Governor of Surat dated 22nd January 1677, in which he complains that Shivaji used to collect all the grain production of his territory and store it on his forts.[147] The provision of grain was no doubt an important factor in those days. Because the garrison could defend the fort so long as they could meet their requirements of food. Abbe Carre, a French traveller, furnishes an interesting account in this regard. On ~~th~~ his way to Goa, he came across a number of villagers carrying grains to the forts near Khed (Ratnāgiri dist.) He writes, 'an immense Number of People, in troops of eighty or hundred persons, both men and women, all were laden with large sacks of big chests of rice and grain. They were coming from every side, and I asked them where they were going with all this food. They replied that they were taking it to Shivaji's forts for the garrisons and soldiers who protected the countryside, and that all villages for fifteen leagues round were obliged to take their grain there.'[148] The forts referred to by him were Rasālgaḍ and Prachitgaḍ (both in Ratnāgiri dist).[149] It is inferred from this that the cesses like the Kārsaī and the Gaḍçavaṇī were levied for the services of a fort from those villages which were dependent on it.[150]

We know that Shivaji was caught in the fort of Panhāḷā when it was besieged in March, 1660 by Siddī Johar. The siege dragged on for nearly five months and all the roots of ingress and egress were blocked. Shivaji could resist the fort for such a long time because of the huge granaries of Panhala which were filled with grains.

After his accession to the throne Sambhaji ordered all the clerks of the royal stores to submit lists of the property accumulated by Shivaji. We find in the lists submitted by the clerks accounts of grains stored by the great king. The articles like Ghee, Mustardoil, rice, sugar, salt, Garlic, onion etc.[151]

According to warings the various grains in huge quantity, sugar, tobacco were stored by Shivaji on the Rāygad fort.[152]

Like the main fort, the sub-forts or the minor forts in the vicinity were also required to store adequate quantities of grains so that the supplies could be made available to the fort besieged by the enemy. When the fort of Rāmsej was besieged by the Mughals in 1682, Kesó Trimbak Peshwā took his residence in the neighbouring fort of Trimbakgad and supplied all kind of help to the garrison of Rāmesj who successfully resisted the siege for six months.[153]

A valuable information in respect of stores to be made on the fort is given in the 'Mestak-Pustak', an account which was composed during the reign of Rajaram (1689-1770). The author of this Mestak-Pustak, it may be noted, claims that he composed this work on the basis of Mestak originally prepared by Hemādpant, the Minister of Ramchandra Yādava of Devgiri.[154]

In this work it is pointed out that if an impregnable fort is provided with enough grain, the defeat of enemy may be treated as certain.[155] The author also remarks that the impregnability of hill forts always lies in the sufficient stock of required commodities, and therefore necessary provision should be made appropriately.[156] It may be noted here that when the Rāygad is compared with Gibralter it is mentioned " if the hill be furnished with provision, a few men may keep it from all the world".[157] The author of Mestak Pustak hints that the provision of thatch should be made, particularly in the Konkan province.[158] Further he warns that the forts prove useless, if they are not provided with required material in time.[159]

Like the Mestak Pustak, ' Budhabhusanam' throws light on the importance of provision on forts. It recommends that all sorts of oils, medicines as well as grains like barley, wheat, an inferior grain Phaseolus Mungo, pulse, gram, sesamum-seed, etc. should be stored on the fort.[160] Although Amātya is silent on the actual stores, he also emphasizes that all granaries and store-houses of military provisions in the fort should be free from troubles of fire, rats, insects, ants and white ants.[161] In the Budhabhūśaṇam it is suggested that the wealth of rich people and merchants residing in the vicinity should be protected on the fort, particularly in times of crisis.[162]

Water Supply

Shivaji paid great attention to the

provision of water on forts. Generally rock-cut cisterns were used for water supply in case of hill forts. Sometimes tanks or reservoirs were built to store water. On the Rāygaḍ fort we find that several cisterns were excavated, among which the Gangāsāgar tank is still preserved which is full of water during all the seasons.

War Equipment

The garrison within the fort was well equipped with arms like swords, spears, bows and arrows, matchlocks and muskets. Sometimes rockets were used against the assailants and some missiles were in use.[163] One can conjecture the types of weapons used during the period of Shivaji by referring to Rājyavyavahārkośh chronicles, records and Tavarikhs. Shivaji was fond of guns. Several letters of the English factories reveal how Shivaji was earnestly desirous of acquiring more and more guns. We learn that in 1674, Shivaji acquired 80 guns and 3000 maund lead from the French.[164] But the guns and cannon purchased from the French and the Portuguese were of poor quality.[165] It seems that Shivaji did not possess too many guns and cannon to strengthen all his forts. While strenthening the fort Panhāḷā he was compelled to reduce a number of guns mounted on the forts of the Koṅkaṇ.[166] From the accounts of Ajnāpatra we learn that Shivaji possessed some light pieces like Jejalā, Zambaruka, Sutarnal, and charaka,[167] perhaps locally manucatured. Such cannon were generally mounted on the platforms of the bastions of the forts. So far as the hill forts were concerned, these guns played an important part during the sieges. But for repulsing the attack, huge pieces of stones were more effective than the pieces of gun. The garrison within the hill fort usually rolled down huge pieces of stones if the assailants tried to climbe up the steep hill side.[168]

In this behalf Dr. Fryer, a foreign traveller, who visited India during the 17th century observes, 'on the top of the mountains, several fortresses of Seva Gis, only defensible by Nature, needing no other Artillery, but stones, which they tumble down upoin their foes, carrying as certain destruction as Bullet where they alight'[169]

Huge pieces of stones were, therefore, heaped at convenient points of the fort from where they could be hurled down.

Regarding the war equipment within the fort Amatya says, 'All soldiers should possess arms, namely, swords and (Tākaṇyā) missiles.[170] On all the vulnerable places in the fort, big guns, small guns and 'Charakyās',[171] and machines suitable for those places and also for higher places, should be mounted on platforms on every bastion and rampart wall at suitable intervals. The 'Charaks' and big guns should be kept on gun-carriages after testing the weight of the guns and by giving them strong iron-rings as support.'[172]

Amatya further provides a list of accessories required for guns to be kept ready on the fort. 'Bags of powder, iron-bags, brushes for cooling guns, balls, and other iron filings, small or great river-stones of the size of betel-nuts, 'Palākhas' of rockets, matches of guns, 'tarafas', took for repairing the touchholes of guns, and other things necessary for gun-firing should always be kept ready near guns.'[173]

Further he states that the grenades and rockets should be kept ready at every watch-post.[174]

From the above account, it is obvious that the Marathas were having the light pieces of guns like Jamburas, Charkyās, etc. which they used to mount at strategic points. Amātya emphasises more on keeping the accessories ready. He condemns the officer 'who says that there is no enemy in the vicinity at present, when he comes he (officer) will bring the required things from the store house.'[175]

Great care was taken for the preservation of artillery within the fort. In the rainy season guns were to be besmeared with oil and wax. The touch-holes of guns were to be filled up with wax and front covers. Every care was taken to keep weapons safe from the effects of damp weather.[176]

As regards the other weapons, the 'Budhabhūshaṇam' furnishes a list of weapons stored on the fort.[177] It is interesting to note that the weapons like 'Triśūla', 'Vetra' were included in the list.[178]

Repairs

From the contemporary records it appears that Shivaji captured several forts, rebuilt or renovated many and constructed a few. Subhasad furnishes a list of 108 forts constructed by Shivaji. In this list several pre-Shivaji forts were included because they might have been renovated or repaired by Shivaji. We know that Shivaji fortified duly the then existing forts like Rājgaḍ, Toraṇā, Viśālgad, Mahipatgaḍ, Rāyagaḍ, etc.

Shivaji always paid much attention to the repairs of forts. Amatya says, 'Although the work of construction is completed, several features of the fort like walls, watch towers, bastions, ramparts are possible to get damaged or breached in times of siege.'[179] For this purpose a department of buildings should be kept on every fort, and it should be entrusted to the Havāldār or 'Mudrādhārī'[180]

From the account given in the 91 Qalami Bakhar we find how Shivaji was particular about the repairs of forts. It is mentioned that the forts of Mālawan, Ratnāgirī, Suvarṇdurg, and others were strengthened by Shivaji. Āojī Panth was posted with a strong force in the fastnesses of Mahipatgad and Khelṇā. Shivaji himself visited these two forts and urged the building of the horses and the repair of the walls and towers, saying, 'Never neglect the repair of the walls, the strengthening of the gates and towers. Always keep the stores, munitions, and provisions of the forts ready.'[181]

From one letter it appears that in the year 1671-72 Shivaji decided to allot a fund of one lakh and seventy-five thousand Hons for repairing his principal forts.[182] From this account we find how Shivaji distributed the amount according to importance of forts.

The fort of Rāyagad was important of all as it was the capital of Shivaji. Rājgaḍ, Purandar, Sinhgaḍ and Pratāpgad were the forts at strategic places and therefore a considerable amount was allotted to their repairs. Forts like Sindhudurg and Vijaydurg were Marine forts and for keeping constant check on the activities of the Siddis, these forts were important. For these forts also a considerable amount was granted. It is interesting to note here that Shivaji allotted 4% Hons. i.e. 7,000 in the estimate for miscellaneous expenditure; as it is done by the contractors of modern times

The required funds were generally raised from various sources like treasure-troves and spoils of war We know that while constructing the fort of Rājgaḍ, Shivaji utilised the treasure-trove found at Toraṇā In 1673, the great treasure-trove was found at Panhāḷā fort and Shivaji used this wealth for the repairs of the said fort. With this he also acquired the forts of Sātārā and Paraḷī.[183]

Removing of unwanted trees and burning the grass was minor work normally to be carried out on the fort. Amatya says, 'trees which grow on fort-walls have to be constantly cut down. After burning the grass growing on the wall and down near the wall, the fort has to be cleared and cleaned.'[184] Because if the trees take root, the walls become weak.

Reserve fund

It seems that a special reserve fund was constituted for the maintenance, repairs, etc. of the forts. In the year 1671-72, Shivaji decided to raise a reserve fund of one lakh and seventyfive thousand Hons to meet the extro-ordinary needs of the beleagured forts.[185] The fund was to be raised from the following Mahāls and personage at the rates described against them.

Kuḍāḷ	- 20,000	Kalyāṇ	- 5,000
Rājāpūr	- 20,000	Bhivaṇḍī	- 5,000
Kole	- 20,000	Indāpur	- 5,000
Dābhoḷ	- 15,000	Supe	- 2,000
Puṇe	- 13,000		
Nāgojī Govind	- 10,000	Kriśhṇājī Bhāskar	- 5,000
Jāvaḷī	- 5,000		
		Total	1,25,000

It must be noted here that a special condition was laid down that this reserve fund was not to be used, if money was available from other sources.

Preservation of trees, plantations, etc.

Amātya gives utmost importance to the preservation of trees on the forts. He says 'Trees on the fort should be protected. Jack, tamarind, banyan, pimpal and other big trees as well as lemon, orange and other small trees should be well protected, similarly, flower trees, creeping plants, nay, all the significant and insignificant trees should be planted in forts and protected. In times of need all of them would serve as wood.’[136]

Elsewhere he states that the protection of fort depends upon the trees growing on belt of the hill.[137] Therefore these trees should be allowed to grow thick. In emergency, soldiers and musketeers should be placed in the thicket.[138]

While writing on sanitation, Amātya suggests that no rubbish should be allowed to fall on the roads, in the market and near the walls of the fort. With a warning not to throw the accumulated rubbish down the fort, and by burning it in places, (where it is accumulated), and by putting the burnt ashes in the backyards, vegetables should be made to grow in every house.[189]

Inspection

We learn from one contemporary letter that Shivaji had a plan to undertake the inspection of buildings on the forts in Lohagaḍ jurisdiction.[190] In his programme the forts Rohiḍā and Pāṇḍavgaḍ were included.[191] It seems that Shivaji frequently undertook the tours of inpsection.

Shivaji's insistance on inspection has been well brought out in the 91 Qalami Bakhar. It is mentioned that once Shivaji visited Mahad where Daodkhan, the official of Shivaji, expressed that as Shivaji assended the throne, he now ought to repose in one place. At that time Shivaji replied, 'No kingdom can be preserved long without constant touring and attention. For watching over the peasantry, strengthening the forts, and putting down oppressors, it is necessary for the ruler to tour in his kingdom'.[192]

In the same Bakhar it is stated that Abājī Pant and Annājī Dutto were appointed to tour and inspect the forts. Their orders were to visit and inspect every fort and to report to Shivaji the strength of its fortifications and store of materials and food.[193]

Amātya provides instructions to officer-in-charge of fort about the arrangements to be made during the visit of the king. He says that the place should be besmeared with cowdung and should be decorated with 'Rāngolī'.[194]

Some observations

At the time of Shivaji's death, his kingdom was defended by two hundred and forty strongholds[195] and not one of them was held by a heriditary noble. Shivaji introduced a complicated system in his fort administration for which constant and vigilant supervision on the part of the king was required. It was unfortunate that Sambhaji, Rajaram and Shivaji II could not pay vital attention towards the administration of forts as they were constantly engaged in war with the Mughals.

During the time of Rajaram, the chief officers of the state became the custodians of the forts.

During the time of Shahu, the things became worse. We learn from the contemporary records that Shahu allotted small funds towards the administration of fort. In the year 1709, an amount of only 400 Rs. was allotted for Suvelā and Sanjīvanī Māchīs of the Rajgad fort.[196] For the Rohidā fort an amount of Rs.1200 was allotted whereas for the Prachondgad fort Rs.3000 were allotted.[197] These funds were too inadequate to meet the expenses of these once upon a time most important forts.

In his period, the chief officers of the state possesse a number of forts. In 1710-11 Parashuram Pratinidhi was in charge of not less than 35 forts which covered the important forts like viśhālgad, Pratāpgad, Chandan, Vandan, Sātārā etc.

As a matter of fact the importance of forts in warfare was rapidly declining in the 18th century. Further the theatres of war were shifted from the Deccan to the North and hence little attention was paid to the administration and maintenance of forts.

NOTES

1. AP, P.61.
2. 91. Q. Bakhar (Sarkar), Q.74; P.129.
3. Ibid, Q.74, P.129
4. Ibid, Q.74, P.129
5. Sarkar J.N, House of Shivaji, P.98.
6. Sabhāsad, P.22.
7. Sabhāsad, P.22.
8. Literary Sarnobat means one who is the officer of watchmen.
9. Swarājyātīl Teen Durg, P.4.
10. SCP, P.160.
11. AP, Pp.62-63.
12. Ibid, P.64.
13. Sabhāsad, P.22, SCP. P.160; AP. P.63
14. Māwjee P.V. and Pārasnīs D.B.(ed) Sanads and letters, Pp.130-132.
15. Sabhāsad, P.22.
16. Ibid, P.22.
17. Chitṇīs P.39.
18. Sarkar, Shivaji and His Times P.35.
19. Jedhe Karīnā, SCP, P.50.
20. SCS, Vol. III, 399.
21. SCP, P.160.
22. Swarājyātīl Teen Durg, (Introduction), P.4.
23. Ibid, P.4.
24. Ibid, P.4.

25. Rajwade, Vol. XVIII, P.81.

26. Kārkhānīs is a 'Sambhār Lekhak.' (RVK-7-200) - SCP.P.160

27. Sabhāsad P.22.

28. Chiṭṇīs, P.106, Chitragupta Pp. 35-36.

29. Fryer, P.3.

30. AP, Pp 62-63.

31. Ibid, P.63.

32. Sen S.N., The military system of the Marathas P.34.

33. Śivabhārata, 26. 63-66.

34. Sabhasad - P.37; 91 Q.Bakhar, P.51.

35. Shivaji Souvenir, Pp.183-184.

36. Itihās Sangrah, Aitehāsik Ćaritre. P.17.

37. AP. P.63, RE P.40.

38. Budhabhūśaṇam, Rājnīti - 155.

39. Sabhāsad, P.25; ~~Śiva Chhatrapatī P.~~

40. Sabhāsad, P.25,

41. AP. P.63.

42. Chiṭṇīs, P.146.

43. Ibid. P.106.

44. Ibid., P.106.

45. Ibid., P.106.

46. Ibid, P.106.

47. Sanads and Letters, P.130.

48. Ibid, P.131.

49. Rajwade, XVI, 40; XV, 271.

50. ~~Chitnis.~~ Rajwāde, Vol. VIII, 33

51. Patrasārsangrah, L. 2706

52. AP, P.70.

53. Ibid, P.70.

54. Sanads and Letters, P.130.

55. Ibid., P.130.

56. Ibid., P.130.

57. Ibid, P.131.

58. Ibid., P.131. Here instead of the Havāldār the Subhedār is mentioned.

59. Ibid., P.131.

60. Ibid., P.131.

61. Ibid., P.131.

62. Ibid., P.131.

63. Ibid., P.131.

64. Ibid., P.130.

65. Ibid., P.131.

66. SCS, Vol. VII, 47.

67. Ibid, Vol. I, 92.

68. SCS, Vol. III, 539.

69. SCP, P. 160 (RVK 7. 201)

70. Purandare K.V. - Kille Purandar P.49.

71. Rajwade Vol. VIII, 35.

72. श्रीमद्राय गिरौ गिरामविषये हीरोजिना निर्मितो ।

- Inscription at Jagadiśvara temple, Rāyagad.

73. Rajwade, XVIII, 67.

74. SCP, P.160 (RVK-7-201).

75. Ibid, P.160 (RVK-7-202)

76. AP, P.72.

77. Budhabhuśanam - Rājnīti 130-133.

78. AP, P.72, RE-P.47,

79. Budhabhuśanam - Rājnīti - 130-134.

80. Ibid, 135.

81. AP, P.72.

82. ERS, I, 298.

83. Rajwade, VIII, 22.

84. Aitehāsik Sankirn Sāhitya, I, 119.

85. Sabhāsad P. 22, Chitnis. P.106.

86. Sabhāsad. P.22. Chitnis adds two more viz. Sāngvāle (spearmen) and Paṭekarī (soldiers who use paṭṭa).P.106.

87. Kille Purandar, P.49

88. RE, P.41.

89. Ibid., P.41.

90. Rajwade, VIII, 35.

91. AP, P.70.

93. Rajwade, VIII, 35.

94. Kunte B.G. (Tran)- Ahmadnagarchī Nizāmshāhī, P.168.

95. Factory Records, Surat, Vol. 106, Fol.14.(sen)

96. AP, P.63.

97. Ibid., P.63.

98. Ibid., P.63.

99. SCP, P.161 (RVK - 7.213).

100. Rajwade, VIII, 35.

101. Ibid. 36.

102. Ibid. 34.

103. RE. P.40.

104. Ibid. P.40; AP. P.63.

105. Grant Duff observes, 'this establishment, whilst new and vigorous, was admirably suited to Shivaji's purpose, as well of to the genius of the people.' - History of the Marathas, Vol. I, P.322.

106. Patrasārsangrah, L. 1303.

107. Shirwalkar P.B. Kille Vishālgad, P.67.

108. Sabhasad. P.94 fn.

109. Kille Purandar - P.37.

110. AP, P.64.

111. Aitehāsik Lekh Sangrah, I, 76.

112. AP, P.64, RE. P.41.

113. Rajwade, XV, 288.

114. Tārābāi - Kālin - Kāgadpatre,' Vol. I.96.

115. Ibid, 143.

116. Ibid, 143.

117. Itihās Sangrah, Aitehasik Charitre P.17.

118. AP, P.64.

119. Ibid, P.64, RE. P.41.

120. Ibid, P.63.

121. Aitehāsik Lekh Sangrah, I, 75.

122. Rajwade, XII, 123-125.

123. SCS. I.67.

124. Rajwade XV, 343, XVIII - 57. It may be noted that the fort was in the hands of the Mughals for sometime during the War of Independence.

125. 91. Q. Bakhar (Forrest) Q.72.

126. AP, P.64; 126 A- Sivachhatrapati. P·34

127. SCS, VII, 43.

128. Shivaji Souvenir Pp.183-184.

129. SCS, VI, 22.

130. Sabhāsad P.55. The name of Kadatoji changed as Prataprao, when he became Senāpatī.

131. AP, P.65.

132. Ibid., P.65.

133. Ibid., P.65.

134. AP, P.65, RE, P.42.

135. 91 Q. Bakhar (Forrest), Q.60.

136. Śiva Chhatrapati - Pp. 240-241.

137. 91 Q. Bakhar (Forrest) Q. 60.

138. Rajwade, VIII, 9

139. Jedhe Chronology- Shivaji Souvenir - P.32.

140. SCS, VI. 53.

141. Rajwade, VIII, 32.

142. Ibid., XV, 348.

143. Ibid., XV, 350.

144. BISM Q.7/75.

145. MA, P.23.

146. SCP. P.160.

147. Patra-Sār-Sangrah, II, 1909.

148. Quoted in - 'Maharashtra in the Age of Shivaji'- by Dr. A.R.Kulkarni P.120.

149. Ibid. P.120.

150. Ibid, P.120.

151. Sarkar J.N. - House of Shivaji Pp.186-187., in the 17th century Dr. Fryer observed several tanks filled with butter of 400 years at Shivneri fort. (Fryer-P.337) Old ghee, it may be noted, still maintains its reputation in native medicine.

152. Awalaskar - Rāyagaḍchī Jeevankathā, P.78.

153. SCP. (Jedhe Karīnā), P.61.

154. Pancham Sammelan Vritta - Mestak Pustak.

155. Mestak Pustak.

156. Ibid.

157. ERS. I, P.252.

158. Mestak Pustak

159. Ibid.

160. Budhabhūśaṇam - 141-151.

161. AP P.70.

162. Budhabhuśaṇam - 154.

163. Tākaṇyā - Hand grenade? RE P.46.

164. Orme- P.46, Patra-Sār-Sangrah Vol.II, 1612.

165. Factory Records, Surat Vol. 105, Fol.164. (Sen)

166. Ibid, Vol.108, Fol.76.

167. RE, P.10, P.46.

168. It is interesting to note that even Kautilya, as early as 3rd century B.C., while describing the advantages of hill forts, says, 'such (hill)fort is of immense service, as it afford~~ed~~ fecilities to throw down the heaps of stone and trees on the enemy trying to climb the fort.' - As. BK.VII,Ch.X

169. A new account of East India and Persia Vol.I, P.307.

170. Takaṇi - a kind of missiles. Hand grenade?

171. Charak - An iron tube filled with powder and fastened to a staff.

172. RE, P.46.

173. Ibid., P.47.

174. Ibid., P.47.

175. AP, P.71, RE P.47.

176. AP, P.71, RE P.47.

177. Budhabhūśaṇam - 138-140

178. Ibid., 138-140.

179. AP, P.71.

180. Ibid, P.71.

181. 91 Q. Bakhar (Sarkar). Q.74.

182. The details of funds alloted to the fort were as follows -

50,000 - Rāyagaḍ.

20,000 - Two tanks

10,000 - Terrace

5,000 - Citadel

35,000 -

15,000 - Ramparts

Total -50,000

Sinhgaḍ	10,000 to each fort	Prachandgaḍ	5,000 to each fort
Sindhudurg		Prasiddhgaḍ	
Vijaydurg		Viśālgaḍ	
Suvarṇdurg		Mahipatgaḍ	
Pratāpgaḍ		Sudhāgaḍ	
Purandar		Lohagaḍ	
Rājgaḍ		Shrīvardhan + Manaranjan	

Korīgaḍ	- 3,000
Sārasgaḍ	- 2,000
Mahidhar-gaḍ	- 2,000
Miscellaneous	- 7,000
Total	1,75,000

- Rajwade Vol. VIII,22.

183. RJ., P.28.

184. RE,P.47.

185. Rajwade, Vol.VIII, 21.

186. AP, P.72, RE P.47.

187. AP, P.69 - RE P.44 - The Word 'Kamargā' denotes the belt of a hill. (i.e. hill fort). The editors of Ajñāpatra use the word 'Kalāraga' by mistake.

188. AP, P.69.

189. RE, Pp. 45-46.

190. Rajwade Vol. VIII, 13.

191. Ibid, 13.

192. 91 Q. Bakhar (Sarkar) Q. 74.75.

193. Ibid, Q.74.

194. RE. P.45, AP- P.69.

195. Sabhāsad - Pp.100-105.

196. Peshwa's diaries - 45/5/26.

197. Ibid. - 45/5/26.

Chapter VI

The Sieges

Forts are put to test during the period of sieges. Capture of a fort, during the seventeenth century, by the enemy led to an easy subsequent conquest of the kingdom. The longer the duration of a siege, the greater the exhaustion of the enemy. The significance of a fort thus depended on its capacity to withstand the assault of the enemy.

We find that several methods, measures and missiles were in use for reducing forts since remote past. Kautilya has paid due attention to the role of forts during the period of sieges. In the ' Arthaśāstra ', he describes the steps to be taken during the operation of a siege. He refers to underground tunnels dug upto the walls of a fort. He also furnishes the information in respect of siege towers and siege engines. We know from Greek sources that Alexander was having several missiles and battering engines with him, when he invaded India. Treachery was also an important weapon used in India and abroad since the dawn of history. In the 3rd century B.C., Archamedes, the great Greek mathematician, 1

introduced ' petrariae ' a powerful siege engine and made revolution in the art of assault. By the end of the 14th century, use of gunpowder became well established. The powerful fire-spitting machines made great change in the system of warfare. The guns of great calibre made the siege engines outdated. But the methods of constructing siege towers, scalling ladders, digging tunnels were generally in practice even after the introduction of artillery.

Since early times, the defence of forts was through the embrasures and loopholes in the battlements. Even in the middle ages there was no great change in weapons to be used. The bow and arrow was generally in use. When cross-b~~r~~ow was introduced, the loopholes of the battlements were widened. After the introduction of gunpowder, the gun loops began to appear in the battlements at the end of the 15th century. Machicolations were in use long before the beginning of the Christian era for defending gateways. It is to be noted here that the fortifications of strongholds were being continually adjusted to the defensive requirements of the day.

Siege engines

By the end of the 4th century B.C., considerable progress was made in the design and construction of siege engines in Western Europe. The engines like ' Petrariae ', 'ballistae', 'catapults'[2] were in general use. From Kautilya's account we can gather some information of typical siege engines, probably in use during the Mauryan period. Kautilya refers to 'Sarvatabhadra' and 'Jāmadgnya'.[3] These are the machines with wheel that throw stones in all directions. Both the engines are identical with 'ballistae' and 'catapults' (scarpoins) for casting stones (Fig.3b). It is to be noted that all these projective engines were in general use during the Medieval period. A powerful engine 'trebuchet' an engine throwing enormous stones with great violence was used in the siege of Rhodes in 1480.[4]

In India, as early as the 8th century, Mohammad-bin-Qasim, who conquered, Sindh brought a siege engine 'Arūs' with him. It was the machine 'Manjaniq' to be worked by 500 men. It is mentioned that it had to be brought on a boat.[5] Further we learn that the 'Mongonel' or the trebuchet, the powerful siege engine, was in use in India since the 12th century.[6] In the 13th century, the 'Mangon', a less powerful machine than the Mongonel was introduced in India.[7]

In the medieval India, the 'Kharak' was used for making breach in a wall. It was a heavy structure consisting of a beam with sharp iron point at the end. It was slung by ropes or chains from two perpendicular posts.[8]

In the age of Delhi Sultanata, Jalaluddin Khalji used 'Maghribis' a powerful siege engine -- in capturing the fort of Ranathambor. Malik Kafur also used the said engine during the siege of Warangal.[9] By the end of the 16th century, the use of gunpowder made a revolutionary change in the mode of warfare. The siege engines were replaced by the guns of great calibre. As such we get rare references of such engines in the Mughal-Maratha period.[10]

We find that the heavy guns were gnerally used by the Mughals. The heavy gun known as 'Topḥ' was a large connon or siege gun. The Mughals used to mount these heavy guns on the siege towers for making an effective bombardment on the walls of the fort. The cannon called 'Topḥ-i-Hawāe' were often used by the Mughals in the sieges. Sometimes these guns were fixed on trees in order to fire in the direction of forts.[11]

Jai Singh in his Deccan campaign, raised three guns with elaborate efforts on the top of the steep hill near the Purandar. All those three guns have been described by names, 'Abdullāh Khān,' 'Fateh Lashkar', and 'Havelī'[12]

The heavy and the light guns were also used in forts. Instead of mounting them on carriages, they were generally put on the very embrasures, sometimes supported by two movable timbers.

From the account given by Amatya we learn that the Marathas used light artillery consisting of guns like Pilnāla, also called as Gajnāl~~e~~and Hāthinālā,[13] Shutarnāla,[14] Ramchāngi[15] and Zambruk.[16]

Besides the guns mounted on siege towers, the Mughals used rockets for bombardment on the fort walls. The rocket is described by William Irvine, 'a species of rocket or pipe of iron filled with fire powder well rammed, and tied to long sticks. They make a great noise in the air. They are used to throw at crowds and to embarrass cavalry. Mostly they create more disorder than they do damage.'[17]

Siege towers - The use of siege tower was well known in India and abroad prior to the christain era. Kautilya refers to elevated posts for archers.[18] At the time of his invasion in India Alexander was having several movable towers.[19] The use of siege tower did not cease even after the fire spitting machines were introduced in the 15th cent. A.D. In the early times, the siege towers were constructed for mounting the siege engines. After the introduction of gun powder, the method of constructing the towers remained as it was. The only change that we find is the replacement of the siege engines by big guns. The towers were generally built with the branches of trees.

Even in Western Europe, siege towers built of timber were used.[20] They were built so high as to command the interior of the fort. These towers were called 'sibās' or 'Dhamdhamās' during the 16th and 17th centries. The Pājyavyavahārkośa refers to Dhamdhamā as pratigulnua[21] (Fig. ~~25a~~ 23a).

During their military operations in the Deccan, Mughal Chieftains generally preferred siege towers. In 1660, Shaista Khan ordered to built the siege towers at strategic places for mounting the big guns brought from well known forts in the Deccan, when he besieged the Chākan fort.[22] In the Deccan campaign of Jai Singha of 1665, we learn from Ālamgirnāmā that several siege towers were constructed for mounting the guns to fire on the fortification of Purandar and Rudramāḷ (also called Vajragad).[23] It is also mentioned that Jai Singh, 'who is adept in the art of reducing the forts.' ordered to be built the 'dhamdhame' of great height with timber and flank.[24] According to his order, the siege tower was constructed in front of 'Safeṭ Burj' within a day. The height of the said tower was equivalent to that of Safet Burj.[25] In April 1682, Shahābuddin, the Chieftain of Aurangzeb besieged the fort Rāmsej in the Nasik district. He constructed a gigantic tower of such width that five hundred gunners could stand on it at one time.[26] Several attempts were made to reduce the stronghold. At last Shahabuddin withdrew the siege according to the instructions of Aurangzeb. While leaving the place he burnt the huge tower filling in with combustible material and gun powder.[27] In the year 1700, Aurangzeb besieged the fort of Sātārā where he constructed the huge tower of 22m in height. For building such a huge tower, it is said, the wood was used in such quantity that no tree remained in the adjacent area of nearly 96 kms.[28] For carrying wood three hundred oxen were employed. Further, the Mushrif of Tophkhānā (Artillery), Kunjman was sent to collect timber with 1400 camels for carrying material.[29] Eight thousand sacks or bushels were taken from the grain market and filled with sand to form a bulwork round the tower.[30] It seems that the construction of siege tower during the warfare was a costly affair and the Maratha armies did not prefer such towers it their military operations.

Pent-house...

Pent-house means a trench or an approach made in besieging a fortress. In India Pent-house was known as 'Sābāt' during the Mughal period. (Fig. ~~25a~~ 23a).

From the account given by Kautilya it appears that the method of digging trenches was in practice during the pre-Islamic age.[31] Even in Europe, the use of pent-house was common before the Christian era.[32] During the middle ages, the Muslims used prominently the method of 'approach by sap and mine.' We know that Sher Shah (1545-46) carried pent-house (Sābāt) to the foot of the fort wall and laid the mines at the siege of Kalinjar.

The method of digging the 'sābāt' is described by William Irvine.

'Sābāt is the name for two walls which are made at the distance of a Musketshot, and under the Shelter of planks and baskets which are held together with skin, the said walls are carried close to the fort. Then the matchlockman and the mine-diggers come in safety, through the wide way between those walls, to the foot of the fort, and there they dig a mine, and fill it with gun powder. When the fort has been breached, the rest of the army reaches the spot by way of the sābāt and effects an entry into the fort.'[33] (Fig.~~25~~ 23a).

Shaista Khan used the method of 'sap and mine' during the siege of Chākaṇ in 1660. In the Ālamgīrnāmā it is mentioned that pent-house was carried to the bustion and mine was sprung.[34] In his Deccan campaign Aurangzeb ordered to excavate trench at the foot of the Sātārā fort, when it was besieged in 1700. According to his instructions another trench was also excavated under the supervision of Ruhullāh Khān to the bastion of fort wall near the main gate.[35] The fort of Viśālgaḍ was besieged by Aurangzeb in 1702. The Mughals excavated pent-house and carried it to the moat of citadel. While the work of carrying the sābāt was in progress, several Mughal armsmen were slain owing to the severe fling made by the Marathas from the 'Revaṇī Burj' of Viśālgaḍ.[36]

It is to be observed that the process of preparing or excavating pent house is lengthy and much expensive. Ferishta tells us that a body of 500 carpenters, earthworkers, and showelmen were set to work during the siege of Chitor to construct sābāt.[37] Mustaīd Khan, who was present during the siege of Sātārā in 1700, says that two thousand pedple (Mēwale) were engaged to render the help to mine diggers.[38]

It seems that the Marathas did not prefer such lengthy and costly process. We know few instances of sap and mine executed by the Marathas. Shivaji tried to breach the wall of Fonda fort by laying mines four times.[39] When Viśālgad was besieged by Aurangzeb in 1702, the Marathas excavated secret tunnel from the main gate to the Revaṇī Burj in order to defend it from the Mughal attack.[40] Instead of Sābhāt, the use of open trenches was made by the Maratha army as we learn that in 1670 at the siege of

Karnāḷā, the Maratha army advanced by 'throwing breastwork of earth.'[41]

__Scaling ladder__ - __Nardubān__, or scaling ladder (Fig. ~~253~~ 23 d), was known in India since a long time. It was a simple process to reach the battlements of the fort and was used throughout the early and middle ages. The Mughals and the Marathas resorted to this method in a number of sieges, particularly in the Deccan. It may be noted that the Marathas prominently practised the said method in capturing the hill forts as they were having the precise knowledge of gorges, valleys precipices, and other features of the hill forts, in the Deccan. Moreover, it was the least costly method which required more risk and lesser expenditure. The people from mountainous area of Sahyādri were enterprising and accustomed to climb the precipitous part of the hill without using even rope or rope ladder. We learn from Sabhasad Bakhar that Tanaji Malsure asked two bold 'Māvaḷe' to climb up the steep scarp of Koṇḍānā fort (Sinhgad). Accordingly both of them ascended the gorge just like monkey and thereupon they arranged for rope ladder which facilitated Tanaji and his troops to scale the scarp.[42] In 1693 the Marathas recaptured the fort Sinhgad by using the same method. At this time the Maratha troops ascended the scarp by ropes (Māḷ) in the first place and when Vithojī Kārkare arranged ladders to the fortification, they escaladed and captured the fort on 1st July 1693.[43] Again in 1705, Sinhgad was captured by the Marathas by means of rope-ladders.[44]

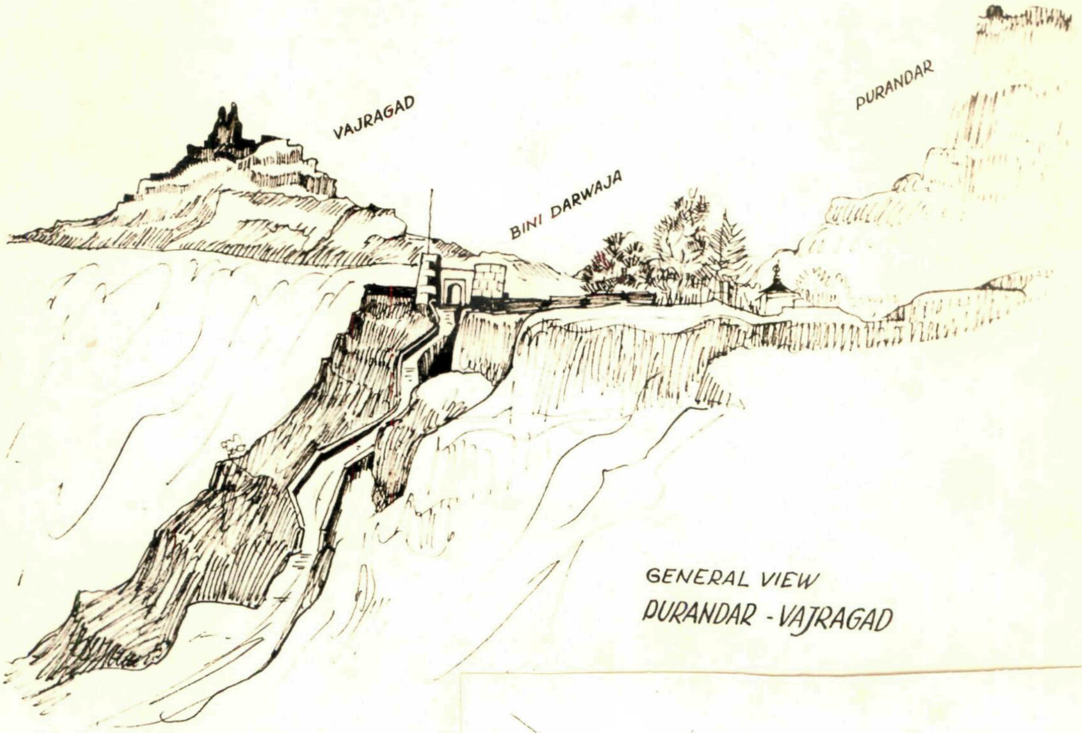
Mughals also used rope and ladders while capturing some Maratha hill forts. The fort Kārigad was captured by means of rope-ladders in the year 1694. Here it may be noted that Beg, a Mughal officer Bag of Junnar seduced the garrison of Kārigad through Rāyaji Bahulkar.[45] While capturing the fort of Sātārā in 1700, Tarbiyat Khan, the Mughal officer, tried to scale the walls by means of rope-ladders.[46] Saqi Mustaid Khan furnishes a detailed account of siege of Viśālgad in 1702. Here the Mughals tried to throw the ladders from the tunnel to the battlements, but the garrison, within the fort made their attempts futile. Thereafter the Mughals prepared the ladders of camel-litter (Kajāwahs). While preparing the ladders they fixed planks on Kajāwahs. One day, Fathullāh Khān, a Mughal officer, was struck on the head by the flying splinters of a plank smashed by the stone throw from within and was severely injured.[47] It seems fron the above account, the method of sealing the fort wall by means of rope-ladders was not favourable to the Mughals. We find one exceptional instance showing that the Mughals captured the fort of Toraṇā with great skill in 1704 by means of rope ladders. Even Khafikhan mentions that the Mughals captured several forts of the Marathas by means of treachery and bribery. But in the siege of Toraṇā, they never resorted to those means.[48]

Filling the ditch - (Khākrez)-

Kautilya suggests that the ditch may be filled up with soil, if it is very deep.[49] It seems that the method of filling the ditch and thereupon escalading the wall was known since a long time. The method was known as Khākrez during the Mughal Period (Fig. ~~25a~~ 23 d). This method was rarely in practice as it was very difficult to fill up the trench when uninterrupted firing or casting the stones was being made from battlements. We know that Shivaji attempted to fill up the trench around the fort of Shirvaḷ,[50] while capturing it. During the siege of Phonḍā in 1675, Shivaji had filled up the trench with trees cut down for the purpose.[51]

Morchā- Morchā means a battery or fortification. The Mughals used to set up the ' Morchās ' all around the fort during their military operations. It is usually a mound of earth where the siege guns were to be placed. Before setting up the Morchā, they used to select a safe as well as strategic place in the vicinity of the fort to be sieged for their encampment. Jai Singh selected a place for his camp in between Sasavad and the fort Purandar, both four miles (6.45 Kms) away from the place, during

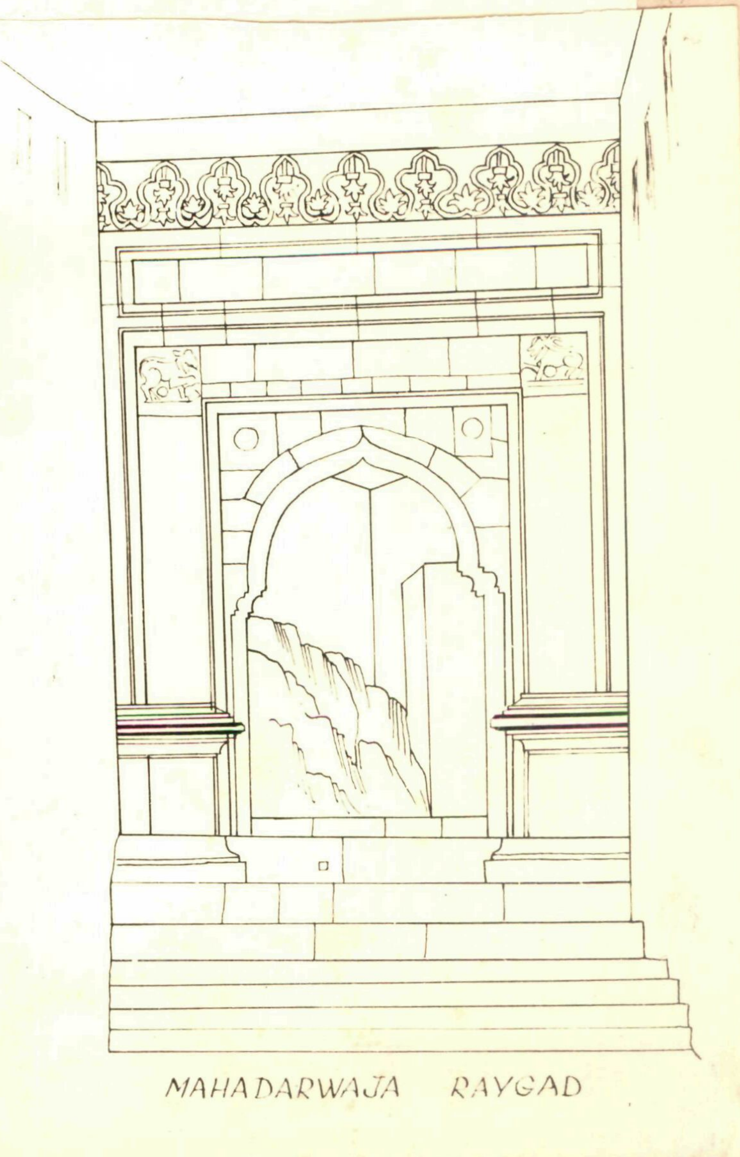
Fig. 22


VAJRAGAD
BINI DARWAJA
PURANDAR

GENERAL VIEW
PURANDAR - VAJRAGAD

a

b



MAHADARWAJA RAYGAD

the siege of Purandar.[52] In 1699, Aurāngzeb selected a plain on the bank of the river Krishnā, two miles (3.20 kms) away from the fort Vasantgad, where he pitched his tent.[53] It is noteworthy that Aurangzeb used to prepare a plan of encampment. While proceeding to Sātārā, Aurangzeb had taken a halt at Kāranje, where the plan of encampment had been prepared on sheets. On 24th December 1699, the area occupied by Aurangzeb's encampment was surveyed and found two and half 'Kos' (five miles) and twenty five 'Sākhalis' (chains) in circumference.[54]

Mughals also used to construct a temporary fortification around their camp. Aurangzeb was very particular or rather very cautious in constructing fortifications around his camps to ensure security. As soon as he stepped in the Deccan in 1682, he decided to fortify the city of Aurangabad, his Deccan head-quarter, as a precautionary measure against the danger from the Marathas. Accordingly he constructed a city wall consisting of several gateways, bastions, etc. with an expenditure of Rs. three lakhs.[55]

In 1699 while proceeding to Sātārā, Aurangzeb encamped at Karanje. Here he ordered that the Mansabdār of 'one thousand' should construct the wall of five chains in length whereas the Mansabdār of 'five hundred' should construct the wall of two and half chains in length to ensure security.[56]

Around the fortifications of encampment the Mughals sometimes used to dig a small trench. It is interesting to note that Aurangzeb, though overcautious, did not pay attention ~~in~~ to constructing wide trenches. At Aurangabad, except the natural ditch of river Khām, no ditch was provided. William Norris paid visit to the Aurangzeb's camp of Miraj in 1701. He laughed at, when he observed the narrow ditch around the camp, and expressed that even a child of six to seven years age, could easily cross such ditch.[57]

When encampment was settled in all respects, the Mughals used to throw the earthworks for mounting the guns in front of the fort proposed to be captured. Generally Morchās were set up in all directions. We learn that Shaista Khan set up the Morchās in all directions during the siege of Chākaṇ and appointed several Mughal officers incharge of them. He himself was in charge of a morchā to the north.[58] It may be noted that siege towers were generally placed ahead of the morchās (Fig. ~~25a~~ 23a).

The Marathas, like the Mughals, also adopted the practice of setting up morchās. In the Rājyavyavahārkośa, ~~a~~ the word 'upasarpaṇam' denotes a morchā.[59] It may be noted that the Marathas generally used to set up the morchās for defensive purposes. When the fort of Chākaṇ was besieged by Shaista Khan, the Marathas threw up morchā around the moat.[60]

Treachery and Bribery -

Treachery and Bribery were used since a long time to gain the possession of an impregnable fort. It is interesting to note that Alexander resorted to bribery by which he successfully captured the fort 'Aornos', located on the bank of Indus.[61] We know that Alauddin Khalji resorted to treachery in capturing the fort of Devgirī (Daulatābād) in 1296. During the Deccan campaign of Aurangzeb, several forts were reduced by the Mughals, resorting to bribery. A comparative statement appended to this chapter would reveal, how the Mughals succeeded in this method of taking possession of a fort. Even Khāfī Khān supports this fact.[62] It would be interesting to note the surrender of forts on a large scale by the Marathas for a few chips from the Mughals. Does it lead to establish the fact that the Marathas, in general, were treacherous people? It is not necessarily so. The Marathas seemed to be tactful in such bargains. They used to defend the fort against the attacks of the Mughals until the rains started. Once the mansoon ~~was~~ set in, it was of no use defending the fort. They must be making some good out of this bad situation. They would surrender the fort to the enemy for some bribe and quit it. Tarabai's letter to the Berads, dated 16th April 1703, throws light on the the defence tactics of the Marathas with regard to forts. The fort of Sinhgad was captured by the Mughals in 1703. Tarabiyat Khan bribed the Marathas who handed over the fort in the month of April. Tarabai, the dowager queen of Rajaram, disapproved of the act of Badhai and Khaṇḍai Berad who were the officials of Sinhgad. Tarabai wrote to the Berads, 'You should have defended the fort until the monsoon. But you have failed to do so.'[63]

Strategy -

Strategy, no doubt, was an important factor in the military operations. We know that the Mughals practised the method of direct attack which is referred to by Raghunath Pandit as 'Sultāndhavā.[64] On the other hand the Marathas adopted 'guerilla' tactics (Ganimī Kāvā). It may be noted that the Mughals army was always well equipped with fine artillery consisting of big guns of high calibre. Moreover, they were habituated to 'open battles' as they belonged to the northern plains. But the Marathas, on the other hand, were having light artillery and accustomed to travel through hills, valleys and thick forests. The reasons for this must be traced ~~in~~ to the geogrophical environments of the Marathas. It has been rightly observed, 'The Maratha tactics, known as the guerilla warfare, were charecteristic because of the land in which the Marathas generally fought. One of the main reasons of the success of the Marathas everywhere, even when immense odds were against them, was that they knew each and every hill and dale, of the district over which they were fighting, while their opponents were quite strangers to such hilly paths.'[65]

The Mughals faced tremendous difficulties in the Deccan while conducting their military operations. Owing to high precipices, valleys and thick jungles, they found it too difficult to carry on military movements with their heavy bags and baggages, particularly in the Konkan. During the March of Viśālgaḍ which started from Malakāpur through the Āmbā pass in October, 1701, the army of Aurangzeb suffered a lot of hardships. Saqi Mustad Khan tells us, 'In all the paths of this hilly track are impregnable forests and dense thorny jungles, at which even sun dares not look. Lofty and stout trees abound on all sides like the wretched infidels. The branches were so intertwined that even an ant could hardly pass through them. The path that there was, difficult even for footmen. The defiles and pits were deeply sunk. The hills were firmly rooted in the soil.'[66]

Strict blockade -

The popular method of reducing the fort used by the Mughals was strict investment and starving out the garrison of a fort. The Mughals used to besiege the fort months together and block all the paths of egress and ingress. When stock of grains exhausted, the garrison within fort would be compelled to face starvation. In such circumstances, the defenders could not resist for a long time. Even in a plain territory, the Mughals captured several forts by this method.[67] There were few captures by a coup-de-main (sar-i-savari).[68] In the Deccan also the Mughals mostly depended on blockade system rather than actual attack.

Grant Duff observes:

> 'They (the Mughals) never considered an army capable of undertaking a regular siege unless sufficiently large to surround the place invested and completely obstruct communications.'[69]

Even the Marathas used the blockade system by which they compelled the Mughals to surrender. The following incident will explain the point.

In November 1695, according to the instructions of Aurangzeb, the Mughal officials pursued Santājī Ghorpade who was following Dhanāji Jādhav to Vellore. Near Dodderi[70]

(Mysore state) Santaji surprisingly attacked the Mughal troops and compelled them to take shelter in the fortress of Dodderi where they faced unbearable starvation for days together.[71] Santājis strategy has been described by Saqi Mustad Khan and also by Bhīmsen. For strict blockade Santāji divided his forces into three sections. One was sent to plunder the Mughal camp, the second was posted to fight with the Mughal army and the third was kept in the reserve.[72] The Mughals were confused and took refuge in the small fortress (gadhī) of Dodderī. The food-store in the fort was limited. The army of Santaji besieged the fort on all sides. The Mughals faced horrible starvation. Qwāsim Khān, the Mughal Chief, died on the third day.[73] At last the Mughals surrendered and a treaty was concluded on the terms dictated by the Marathas.

To ~~break~~ cut off the line of communication of enemies was another important factor of strategy. At the time of battle at Pratāpgad (1659), special arrangements were made by Shivaji for investing Bijapur's forces. He kept reserve force under Bāndal Deshmukh in the jungle of the Pār Ghāt at Jāvaḷī. The motive was 'if the Khan would commit treachery during the meeting, his army should not be allowed to ascend the hill.'[74] Further the special detachment was stationed at the Bocheghoḷī pass under

Haibatrao and Bālāji Nāyak Silimbkar.[75] The work allotted to this detachment was to break the communication of Afzal's troops with his main operational base at Wāī,[76] where Khan had his allies and old officers.[77] If the special force of Khān was attacked with a sudden surprise, the confused detachment would have retired to Wāī. Further there was possibility of getting help from the remaining army at Wāī. Having thus noted the importance of Wāī to the Khān, Shivaji had to plan his strategy accordingly.

The skill of a leader lies in first driving the enemy to a theatre of war which is favourable to him and then attack him vigorously. Shivaji was a master in this type of military strategy. We have already seen how Shivaji encompassed the troops of Kartalab Khan in the narrow pass of Umberkhiṇḍ.[78] Similarly in the case of Afzalkhān episode Shivaji selected the hill of Pratāpgaḍ for offering fight. The peculiar position of pratāpgad and its vicinity was most favourable to Shivaji.[79]

The Marathas were having a practical knowledge of the physiographic features of the Deccan. They knew every nook and corner of their territories. The Mughals, although fully equipped with artillery, proved themselves inefficient to overcome the war tactics of the Marathas. Shaista Khan (1660) and Aurangzeb (1683 - 1707) failed to conquer the Maratha territory. Jai Singh alone succeeded in defeating Shivaji in his Deccan-campaign of 1665. A critical study of these three expeditions will reveal the fact how strategy was responsible for the great success of Jai Singh. It may also be noted that the importance of forts was well recognised by Jai Singh who could succeed in breaking off the communication of the Marathas in a critical position.

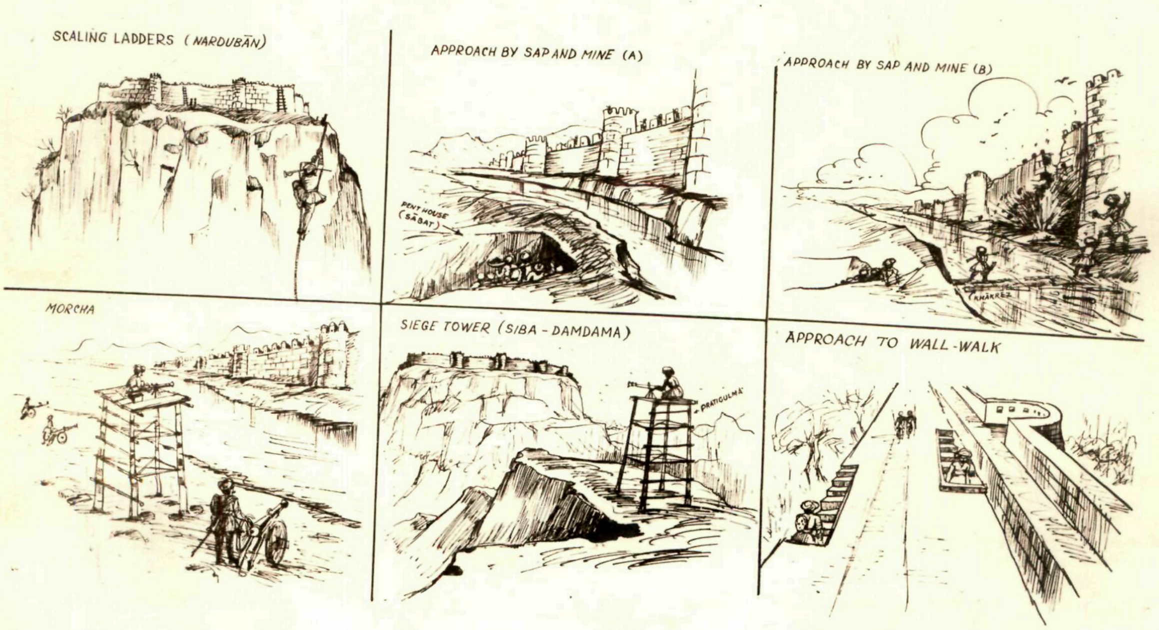
Shaistakhan's expedition

On 28th January 1660,[80] Shaista Khan (Amir-ul-Umarā), Subhedar of the Deccan, left Aurangabad for Shivaji's territory along with his strong troops consisting of camel artillery, elephant artillery and other tremendous war equipment.[81] He reached Ahmadnagar on the 11th February where ~~t~~he camped for some days in making necessary arrangements.[82] When he arrived at Supā (Fig. ~~25b~~ 23b) he placed Jādhavrāo (Jadurāy), his officer, to safeguard the region and to make necessary arrangements for supply of grains, etc. to the Mughals.[83] On the 6th of April he arrived at Bārāmatī (Fig. ~~25b~~ 23b) where he kept some force for the conservation of fortress at that place.[84] His movements upto Bārāmatī were as per his schedule and all the necessary arrangements from the strategic point of view were made.

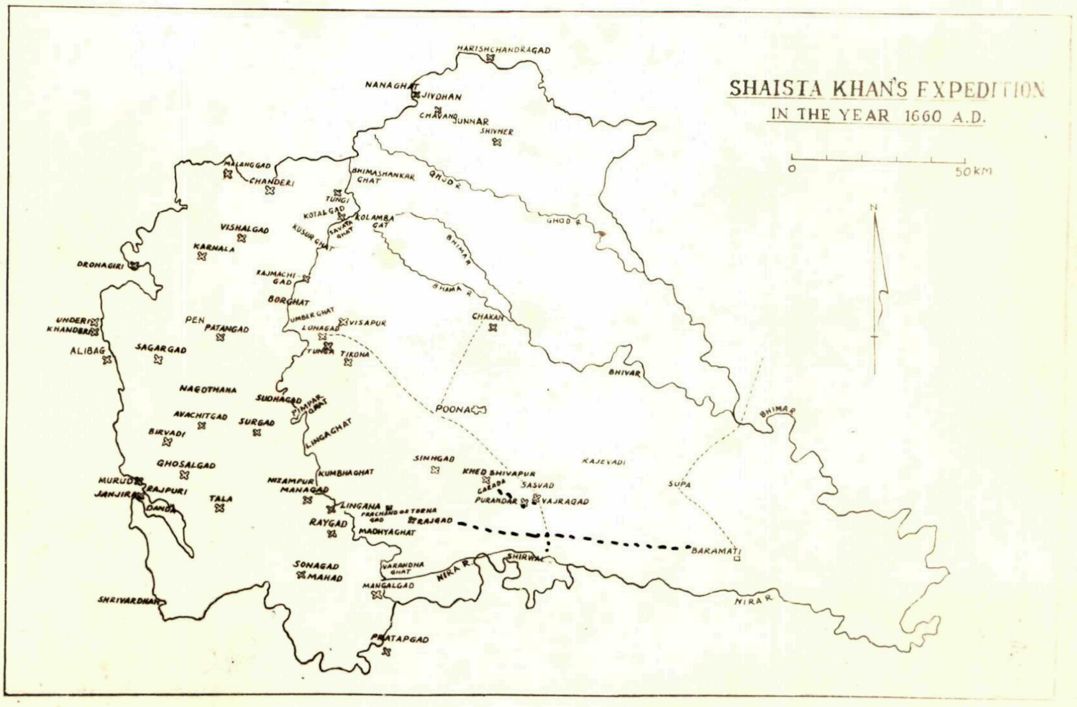
When he reached Shirvaḷ, he learnt that the fort Rājgaḍ of Shivaji was only 32 kms or 20 miles away from Shirvaḷ and other four or five forts belonging to Shivaji were located in the vicinity of Rājgaḍ.[85] This means that Shaista Khan was not careful in chalking out his programme of expedition. From Shirvaḷ he sent some forces to destroy the territory adjacent to Rājgaḍ. Accordingly the Mughal forces destroyed some of the villages around Rājgaḍ. But no attempt was made to besiege the fort itself. Thereupon Shaista Khan left Shirvaḷ and proceeded further to Shivāpūr. On rea~~d~~ching Shivāpūr (Fig.~~25b~~23b) he learnt that the Marathas had assembled at the foot of the ghat. Shaista Khan established some outposts in the area of the ghat and tried to find out another route to proceed further. But meanwhile he came to know that there was one accessible rout to procceed further without getting any hindrance from the Marathas. So Shaista Khan got that road repaired and proceeded further.[86] From this account, it seems that Shaista Khan was not having enough knowledge of physical features and routes of a country under his military movements.

Thereafter Shaista Khan arrived at Sāsavaḍ. Here he despatched some troops to destroy the territory adjacent to the fort Purandar but they could not overcome the determined resistance given by the Marathas. Shaista Khan, therefore personally proceeded to the place of skirmish with his troops and pursued the Marathas to the foot of Purandar. The garrison from the fort severely attacked with arrows and shots through battlements. In the evening Shaista Khan returned to his camp.[87] Here again we find that Shaista Khan did not attempt to capture the fort of Purandar. Next day he proceeded further and arrived at Rājavāh,[88] where he took a halt. At this place the Mughals had to construct a road as they wanted to cross a huge hillock.[89] Again it is confirmed that no attempt was made to prepare accessible roads before undertaking the expedition. At Rājavāh, Shaista Khan learnt that the enemy ruined the territory towards Poona and Chākaṇ from where the Mughals were obtaining grains and herbage.[90] The author of Ālamgīrnāmā says that while proceeding further from Rājāvāh, Shaista Khan asked SarafarsKhān and Jadurāy, his officials, to watch the activities of his foes.[91] From this we can conjecture that Jadurāy, who was appointed at Supā for controlling region and supplying the grain, etc. to the Mughals, might have been asked to join the main contingent camped at Rājāvāh. We do not know whether any other person took the charge of Jadurāy or Shaista Khan made some other arrangements

Fig. 23


SCALING LADDERS (NARDUBĀN)
APPROACH BY SAP AND MINE (A)
PENT HOUSE (SĀBAT)
APPROACH BY SAP AND MINE (B)
KHAKREZ
MORCHA
SIEGE TOWER (SIBA - DAMDAMA)
PRATIGULMA
APPROACH TO WALL-WALK

a ✓ E


SHAISTA KHAN'S EXPEDITION IN THE YEAR 1660 A.D.

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50 KM
N
HARISHCHANDRAGAD
NANAGHAT
JIVDHAN
CHAVAND
JUNNAR
SHIVNER
MALANGGAD
CHANDERI
BHIMASHANKAR GHAT
GHOD R.
TUNGI
KOTALGAD
KOLAMBA GAT
SAVATA GHAT
KUSUR GHAT
VISHALGAD
KARNALA
BHIMA R
DRONAGIRI
RAJMACHI-GAD
BHAMA R
BORGHAT
UMBER GHAT
VISAPUR
LOHAGAD
CHAKAN
UNDERI
KHANDERI
PEN
PATANGAD
ALIBAG
SAGARGAD
TUNGA
TIKONA
BHIVAR
NAGOTHANA
SUDHAGAD
PIMPAR GHAT
POONA
AVACHITGAD
SURGAD
LINGAGHAT
BIRVADI
BHIMA R
GHOSALGAD
SINHGAD
KUMBHAGHAT
KHED SHIVAPUR
KAJEVADI
GARADA
SASVAD
SUPA
MURUD
RAJPURI
JANJIRA
NIZAMPUR
MANAGAD
PURANDAR
VAJRAGAD
TALA
DANDA
LINGANA
PRACHAND OR TORNA GAD
RAJGAD
RAYGAD
MADHYAGHAT
BARAMATI
SONAGAD
MAHAD
VARANDHA GHAT
SHIRWAL
NIRA R.
MANGALGAD
NIRA R
SHRIVARDHAN
PRATAPGAD

b

for protecting the area in question. But the news heard by Shaista Khan reveals the fact that the area adjacent to Poona and Chākaṇ burnt by the Marathas was probably unguarded. If Jadurāy had been at Supā, the places providing the necessary supplies to the Mughals would not have been ruined easily. It seems that Shaista Khan failed to keep the places of supplies under constant vigilance.

From Rājāvah, Shaista Khan reached Poona after taking two more halts.[92] He decided to stay at Poona till the end of monsoon and accordingly he remained there nearly for forty days.[93] But thereupon the Mughals failed to receive supplies from the adjacent territory as the rivers were flooded.[94] Here again it is confirmed that Shaista Khan was not cautious to keep the communication in order. As a matter of fact Shaista Khan knew that the Marathas in those parts would break the lines of communication and supplies.

Owing to lack of supplies, Shaista Khan decided to proceed to Chākaṇ as the latter place was on the border of the Mughal provinces from where supplies could be received easily. Accordingly he left Poona and arrived at Chākaṇ in the month of June 1660 (Fig. ~~25b~~ 23b).

Siege of Chākaṇ

The fort of Chākaṇ lies on the Poona-Nasik road, 29 kms. north of Poona and 9.50 kms. south of Kheḍ.[95]

The fort, although dismantled in 1858, is still in good state of preservation. It is nearly square with bastioned fronts and cornered towers. The fortifications are surrounded by a moat of 9.15m. deep and 4.50 m. wide. We find only one entrance to the fort to the east.

The author of Ālamgīrnāmā gives an account of the siege of Chākaṇ in detail. Shaista Khan had thrown up the Morchās around the fort.[96] Towards east, several Mughal officers,[97] after setting up the morchās, constructed huge towers. The guns of great calibre were brought from the well known forts in the Deccan. The Mughals excavated the tunnel and were trying to carry the pent-houses to the walls of the fort in order to sap with mines. But heavy rains greatly interfered with the Mughal operation. Fifty-six days were passed,[98] but no progress was made. A pent house was thus excavated in front of Shaista Khan's morchā and successfully carried out to the foot of bastion[99] and mine was sprung. The bastion blew up and the men on it flew like pigeons into the air.[100] But the garrison of the fort tried to defend it from the battlements of walls. When the Mughals successfully entred into the fort, the remaining garrison retired to the citadel and did not surrender till it was reduced to extremities. After restless attempts for two months, Shaista Khan captured the fort.

Shaista Khan appointed Uzbegkhan in charge of the Chākaṇ fort and after spending a few days there he proceeded to Poona.

The interesting accounts furnished by the authors of Ālamgīrnāmā and Muntakhab-ul-Lubāb throut light on the war tactics of the Mughals during the siege. The fort of Chākaṇ was a small fort or a 'Gaḍhī'. For reducing it Shaista Khan constructed siege towers, excavated pent-houses, used sap and mine methods, brought guns of great calibre from elsewhere; and with all these he took two months to reduce the fort against the negligible garrison within.

Further it is noteworthy that Shaista Khan never tried to besiege the forts like 'Rājgaḍ and Purandar, which were the Key-forts' of Shivaji. Chākaṇ was a ground fort and situated on the border of the Mughal-Maratha area. During his camp at Poona, Shaista Khan felt that he could pass the Monsoon more easily at Chākan than at Poona. There he could engage his troops in capturing the fort. Moreover, he could receive the supplies well in time from the adjacent Mughal territory.[101] This may lead us to conjecture that Shaista Khan did not have any plan of capturing the fort Chākaṇ before undertaking his expedition. During the whole campaign, he preferred burning and destroying the territory rather than actually reducing the forts.

After reducing the fort Chākaṇ, Shaista Khan returned to Poona, where he occupied Shivaji's palace and forbade the entry of the Marathas in the city by putting strict vigilance. Thereupon on the 5th April 1663, Shivaji personally attacked Shaista Khan with surprise[102] and put an end to his tragic expedition.

Jai Singh's expedition

Being disappointed by the failure of Shaista Khan's expedition in the Deccan, Aurangzeb appointed his bravest general Mirzā Rājā Jai Singh of Amber to crush the Maratha power.

Jai Singh reached Aurangabad on the 10th February 1665.[103] After meeting Shāhajādā Muazzam he proceeded further and arrived at Poona on the 3rd March 1665.[104]

On reaching Poona, Jai Singh took over the official charge from Jasawant Singh and launched his campaign. We learn from Jai Singh's letter to Aurangzeb that two officials of Shivaji at Purandar fort viz. Alamaji and Khaṇḍkoḷi met Jai Singh in Poona and expressed their willingness to join the Mughal army.[105] It is possible that Jai Singh might have received some valuable information regarding the forts of Purandar and Rudramāḷ from these Maratha officials.

We also learn from his letter that Jai Singh despatched two 'Firangīs', viz. Farasmil (Franciso) and Digmil (Diogo de Mello) to the ports of the Konkaṇ in order to prevent the Europeans from keeping any contact with Shivaji.[106] We learn from one letter of the Portuguese viceroy of Goa dated 23-1-1666 addressed to the Portugal king that Jai Singh concluded a friendly and commercial treaty with the Portuguese through his agents.[107] It was the plan of Jai Singh to combine all the enemies of Shivaji and to attack him from all possible corners. Accordingly he wrote to the Siddīs of Janjira to help against Shivaji.[108] The spies were sent to the Maratha chiefs who bore a grudge against Shivaji. Bājī Chandra Rāo, Ambājī Govindrāo More and Māṅkoji, the landlords of Jāwaḷi, were the rivals of Shivaji. They met Jaisingh and joined the Mughals.[109] Niccolao Manucci, the chief of Jai Singh's European artillery, was asked to secure the adhesion of the chiefs of the Koḷi country north of Kalyān.[110] The landlords of the Karnatak province were asked to help the Mughals. Fazl Khan, the son of Afzal Khan, assured help to the Mughals in this encounter against Shivaji. Jai Singh not only tried to isolate Shivaji from other powers but he successfully gained the help of Shivaji's people by means of bribery. Rama and Hanumanta, two captains descending from an ancient line of jāgirdārs of the Supa sub-division, were called away from the service of the king of Chāndā. They were asked to watch the important military post established at Loṇī, ten miles (16 kms) away from Poona and situated on Poona-Sāsavaḍ route.[111]

Preparations

In one of his letters to Aurangzeb, Jai Singh wrote that he appointed Kutubuddin Khan for Keeping watch on Maratha territory from Junnar to Taḷkonkan.[112] He also asked Kutubuddin Khan to set up a strong post in front of Lohagaḍ and Tādurg fort,[113] (Fig. ~~26a~~ 24a). Jai singh further warned Kutubuddin to keep a strict watch and check on the activities of Shivaji. From the same letter we learn that one more post was established in between Poona and Lohagaḍ in order to check the activities of the Marathas in the ghāt. Poona was an important centre. Jai singh writes, 'the first and important work during the expedition is to establish and strengthen the military posts in the region under military operations.'[115]

Jai singh further explains why he preferred Sāsavaḍ to Taḷkokaṇ for his encampment. He was suspicious about Shivaji's relations with Bijapur. He guessed that the Bijapur and the Maratha troops could join together against him, if he selected Taḷkokaṇ, which was far away from the Mughal territory, as his camping place.[116] Sāsavaḍ was so well situated that from there he could control the territories of both the Marathas and the Bijapur powers. Moreover Jai Singh could receive the supplies from Ahmadnagar and Poona without much difficulty if he encamped at Sāsavaḍ. About Sāsavaḍ Jai Singh writes, 'This place is adjacent to Purandar and other districts of Shivaji. Further it is nearer to the region under Bijapur.'[117] His place of encampment i.e. Sāsavaḍ proved very strategic. On his eastern flank there ~~were~~ was no possibility of attack due to the mountainous ground. He had already established a military post at Supa. So there was no chance of attack from the Supa side. Further Sāsavaḍ was ~~d~~cloes to the boundary line between Shivaji's territory and Bijapur region. For ensuring security Jai Singh compelled the Deshmukhs and Desphandes to submit themselves to the Mughal power.[118] They were warned not to keep any relation with Shivaji. Thus Jai Singh wisely decided to use the 'strict blockade system' for which he took all precautionary measures and blocked the heart of the Maratha territory. Now it was necessary to concentrate all authority in his hand. Jai Singh had been empowered for field operation only, by Aurangzeb who had left other administsative work like promotion, punishment and transfer of officers in the hands of Muazzam, his son, and viceroy in the Deccan. Jai Singh urged the Emperor for entrusting him with full~~y~~ authority.[119] Accordingly he gained absolute control of the expedition. The commandants of the Mughal forts at Ahmadnagar and Parendā were also placed under his orders. Both the forts were near Poona and Jai Singh proposed to keep the prisoners of war in those forts.[120]

One more factor is explained by Jai Singh in his letter. On arrival in the region of the Deccan he realised the importance of the infantry for military operations.[121] Accordingly, he decided to raise an infantry of 7000 in addition to 10,000 which was sanctioned to him by Aurangzeb.[122]

When Jai Singh came to the conclusion that Shivaji had connection with the Bijapur power he despatched some Afghans in the guise of merchants to Bijapur.[123] Jai Singh wanted to collect information regarding Ādilshāh's policy. Further it was his plan to caputre one of the forts of Bijapur by which Ādilshāh might be alarmed.[124] He also tried to encourage Malik Mahmood and Siddi Johar, the officers of Nilangā and Sholapur forts respectively to join the Mughal services.[125] But he did not trust them fully.

Siege of Purandar

On the 14th March 1665, Jai Singh marched out of Poona.[126] But he was compelled to postpone his march and he waited for some days in the vicinity of Poona as he learnt about the movements of Shivaji in Lohagaḍ premises. After making necessary arrangements he proceeded further and reached Loṇī, a village situated 10 miles away from Poona on Sāsavaḍ route. Here a block-house, an enclosure for sheltering the troops was built in three days and Rama and Hanuman (Nimbalkar) were asked to guard the place.[127] On the 29th March Jai Singh reached the place which was at one day's march to Sāsavaḍ. From here he sent Dilerkhan with the vanguard and the artillery for next halt. Next day Jai Singh himself joined Dilerkhan. On the same day (i.e. 30th March), Dilerkhan went to Sāsvaḍ with the army. He was in search of proper site for encampment but in this reconnaissance he reached fort Purandar.[128] The Maratha Musketeers from the 'Māchī' of the fort attacked the people of Dilerkhan. But they were defeated and Dilerkhan captured the Māchī.[129]

On the 31st March 1665, Jai Singh proceeded further and settled his camp between Sāsavaḍ and Purandar. Then he reconnoitred the fort carefully and arrived at the conclusion that there was no other stronghold matching the

the Purandar in the region of Shivaji.[130] The fort Rudrmāḷ was a sub-fort of Purandar (Fig. ~~26b~~ 22a). It commanded the Māchī or lower fort of Purandar on its northern and most important face. Jai Singh observed that the fort Rudrmāḷ (Vajragaḍ) was the key to Purandar.[131] He decided to attack Vajragaḍ first.[132] Accordingly, the military officers were asked to pitch their tents along the hill-side. Jai Singh himself encamped at the foot of the hill and supervised the progress of the siege. The Mughal army beleaguered the fort Rudramāḷ and captured it on the 14th April 1665.[133] An interesting account of this siege is given at length in Ālamgīrnāmā[134] and in Jai Singh's letters.[135]

Jai Singh writes in his letter to Aurangzeb how he succeeded in raising the big guns 'Abdullāh Khān', 'Fateh Lashkar,' and 'Haveli'. With streneous efforts these three big guns were raised and mounted on the hill opposite to the Rudramāḷ.[136] The severe bombardment from the hill demolished the base of the tower and ~~pioneers~~ Beldārs were sent further to dig for mine.[137] On the 13th April Dilerkhan seized the tower and after a severe encounter with the garrison within the fort, the division of Dilerkhan rushed to the second curtain of the fort.[138] Next day the Mughals captured the fort Rudramāḷ. The garrison within the fort surrendered. Here it may be noted that Jai Singh did not arrest the garrison but allowed it to go to Shivaji. The reason behind this policy was to tempt the garrison of Purandar to join the Mughal side by showing an example of leniency.[139]

The next target of the Mughals was the Purandar fort proper. The main task of reducing the fort was entrusted to Dilerkhan while Jai Singh himself concentrated on organized raids into the Maratha country to lend support to the Khan. Daud Khan, Raja Rāysingh, Amarsingh, Tarkhan, Bukhāri and Achalsingh Kachavā were appointed on special duty of destorying the territory of Shivaji.[140] Jai Singh wrote to Kutubuddin and the officers of Junnar and Tal-Konkan that they should raid the Maratha territory.[141] The author of Ālamgīrnāmā remarks that the policy of Jai Singh in doing so was to trap Shivaji from all the corners.[142] Jai Singh himself analyses his policy in his letter to Aurangzeb. He adopted a three-fold policy in this respect. Firstly, he wanted to convince Shivaji that the Mughal army was large enough and could create constant terror in the various parts of the Maratha Kingdom; secondly, he wanted to impress on him that the entire Mughal army was not engaged in this siege of Purandar and troops were available for offering battle on any front if necessary.

Thirdly, he did not want Shivaji to get an opportunity to concentracte his troops at a particular spot.[143]

Jai Singh writes to Aurangzeb that he could compel the Marathas to surrender to the Mughals by raiding and destroying their territory.[144] Sabhāsad also tells us that Jai Singh insisted more on raiding the territory than capturing the fort. Jai Singh tried to convince Diler-Khan that instead of forts, territory should be captured and paths of egress and ingress to Purandar should be blocked.[145]

From the above discussion it is clear that Jai Singh resorted to the 'strict blockade system.' This was the only way to overcome the guerilla tactics generally used by the Marathas. Shaista Khan had failed to understand the technique of Maratha warfare. We shall see later how Aurangzeb also failed to crush the Maratha power in the absence of the so called blockade system exectued by Jai Singh.

When the siege of Purandar was in progress, the Mughal officials adopted the sco~~s~~rched earth policy in the enemy territories. We learn from Haft Anjaman, Ālamgīrnāmā and Khatut-i-Shivaji that the villages around the forts like Rohiḍā, Rājgaḍ, Sinhgaḍ, Lohagaḍ, Isāgaḍ, Tung,Tikoṇā were reduced to ruins.[146] A glance at plan (Fig. ~~268~~ 24a) will reveal the fact how Jai Singh succeeded in breaking off a chain of forts created by Shivaji. The garrison of Purandar was compelled to defend the fort with its own efforts as the other sources of receiving the succours were perfectly blocked up.

We learn from Jai Singh's letter that the Mughals used the guns of great calibre brought from Burhānpūr and Daulātābād in the siege of Purandar.[147] The author of Alamgirnāmā says that the huge tower equal to the height of 'Safet Burj' (white bastion) of the Purandar fort was constructed in front of it according to the instructions at Jai Singh.[148] After reducing the Safet Burj, the tower was again raised equal to the height of Kālā Burj (Black bastion). Thereupon the guns were mounted and severe bombordment started.[149] The garrison within the fort took refuge in a stockade adjoining the wall of the tower. But they could not defend and ultimately retired to the trenches behind it. Thus the Mughals captured the five towers and one stocka~~l~~de of the 'Khandakalā', a part of the Purandar fort at the north-eastern angle.[150] The Maratha garrison under the leadership of Murar Baji tried to defend the fort with the best possible efforts, and ~~people~~ inspite of the gallant resistance of Murār Bājī, who was fighting with many wounds on his body, the fort fell into the hands of the Mughals, after the death of Murār Bājī on the battle fiel~~e~~d.

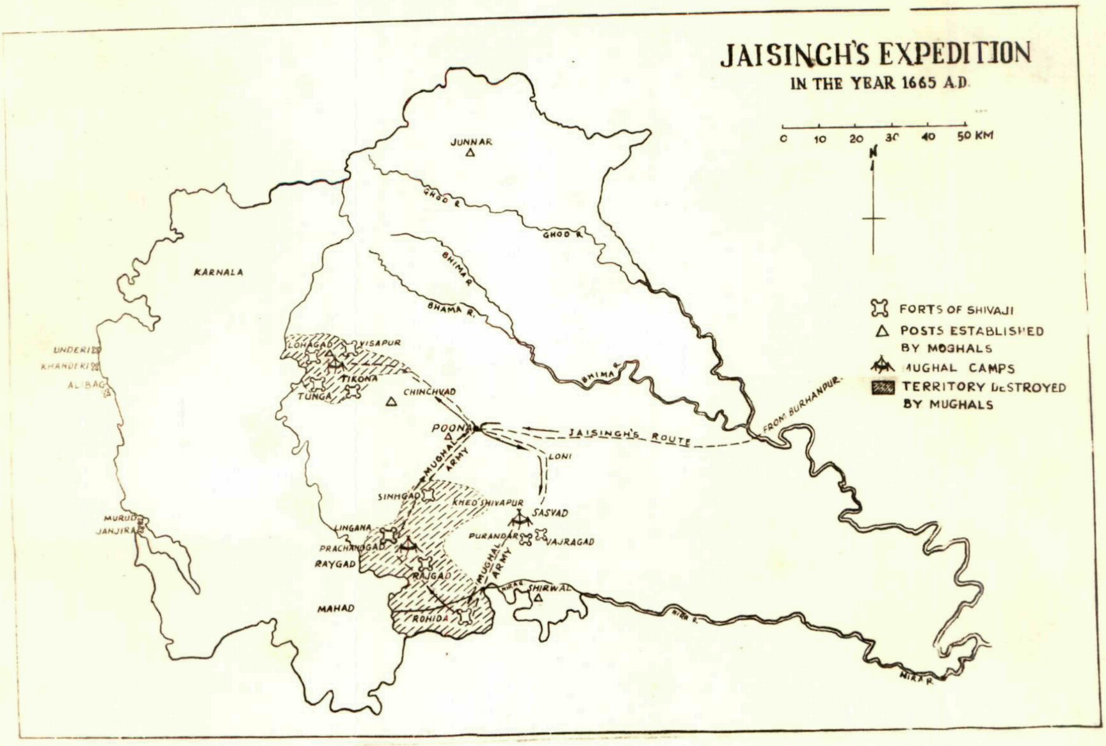
Although Jai Singh blocked all the paths of egress and ingress, it should be noted that the Maratha roving bands tried to raise the siege. In April 1665, Netājī Pālkar attacked the Pareṇḍā fort but the Mughal detachment from Supa made his attack unsuccessful. When Dilerkhan advanced after the capture of Vajragaḍ towards the lower fort (Māchī) of Purandar, the garrison within the fort made sorties which proved ultimately in vain.

We learn from Jai Singh's letter to Safashikan Khan, the Mughal official, that Shivaji made an attempt to ruin the Mughal territory of Gulshanābād (Nasik) by sending cavlary and infantry. But the Mughals succeeded to bring the detachment of the Maratha to their side by means of bribery.[151]

When Purandar was captured, Shivaji was probably at Rājgaḍ.[152]

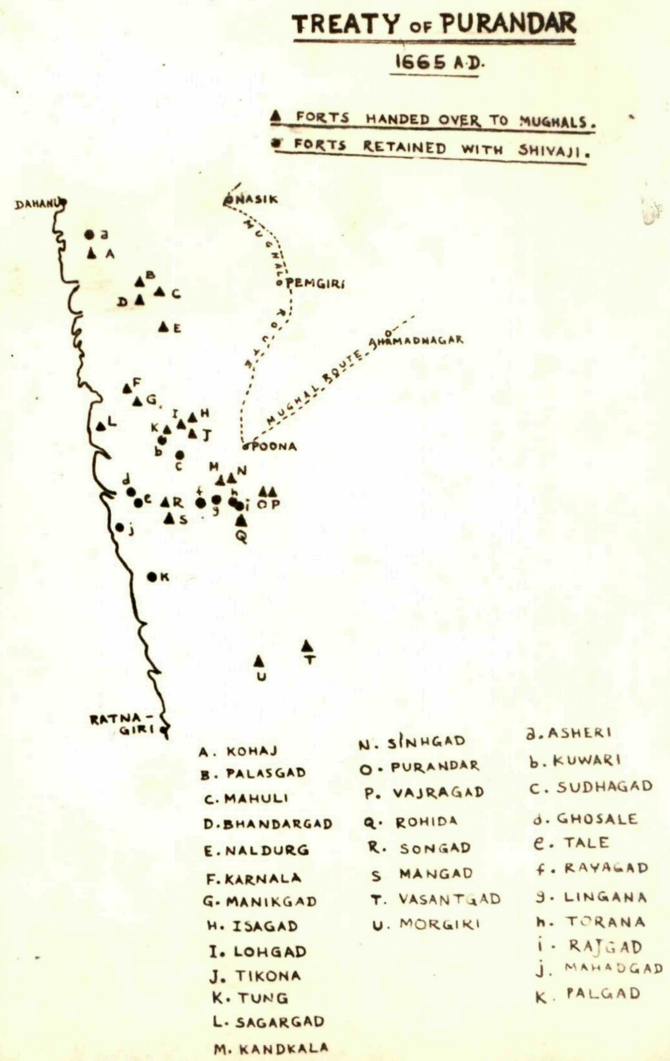
Shivaji was well aware of the fact that it was hardly possible to resist the forts against the blockade system of Jai Singh (Fig. ~~26a~~ 24a). He also recognised that the Mughals could capture all the forts by adopting the same method. Sabhāsad aptly writes, 'when Dilerkhan

Fig. 24


JAISINGH'S EXPEDITION
IN THE YEAR 1665 A.D.

0 10 20 30 40 50 KM
N
FORTS OF SHIVAJI
POSTS ESTABLISHED BY MUGHALS
MUGHAL CAMPS
TERRITORY DESTROYED BY MUGHALS
JUNNAR
GHOD R.
GHOD R.
BHIMA R.
BHAMA R.
BHIMA R.
KARNALA
UNDERI
KHANDERI
ALIBAG
LOHAGAD
VISAPUR
TIKONA
TUNGA
CHINCHVAD
POONA
JAISINGH'S ROUTE
FROM BURHANPUR
LONI
MUGHAL ARMY
SINHGAD
KHED SHIVAPUR
SASVAD
PURANDAR
VAJRAGAD
MURUD
JANJIRA
LINGANA
PRACHANDGAD
RAYGAD
RAJGAD
MUGHAL ARMY
SHIRWAL
NIRA R.
MAHAD
ROHIDA
NIRA R.

a


TREATY OF PURANDAR
1665 A.D.

▲ FORTS HANDED OVER TO MUGHALS.
● FORTS RETAINED WITH SHIVAJI.
DAHANU
NASIK
MUGHAL ROUTE
PEMGIRI
AHAMADNAGAR
MUGHAL ROUTE
POONA
RATNA-GIRI
a A B C D E F G I H K L J b c M N d e R t g h i O P S Q j k U T
A. KOHAJ
B. PALASGAD
C. MAHULI
D. BHANDARGAD
E. NALDURG
F. KARNALA
G. MANIKGAD
H. ISAGAD
I. LOHGAD
J. TIKONA
K. TUNG
L. SAGARGAD
M. KANDKALA
N. SINHGAD
O. PURANDAR
P. VAJRAGAD
Q. ROHIDA
R. SONGAD
S MANGAD
T. VASANTGAD
U. MORGIRI
a. ASHERI
b. KUWARI
c. SUDHAGAD
d. GHOSALE
e. TALE
f. RAYAGAD
g. LINGANA
h. TORANA
i. RAJGAD
j. MAHADGAD
K. PALGAD

b

captured the fort (Purandar), he could easily reduce the rest of the forts.'[153] Here it may be noted that the fort of Purandar acquired very strategic position in the Deccan. It was the guard fort of Poona, as well as Bopadey and Divā passes. Towards its east, the vast plains of Bhīmā basin embrace and as such its position in those days was certainly unique.

Shivaji knew well that the ~~S~~strength of his kingdom lay in the forts. He, therefore, thought it proper to conclude a treaty with Jai Singh before he captured the other strongholds. From Sabhāsad's account it seems that Shivaji, before going to Jai Singh, might have planned in his mind about the forts to be surrendered to the Mughals.[154] It was the diplomacy of Shivaji to make a peace with the Mughals by surrendering some of the Bijapur forts and save the country from a complete destruction.

Accordingly he met Jai Singh on the 12th June 1665 and a treaty was concluded. Twenty three forts were deli~~e~~vered to the Mughals and twelve forts remained with Shivaji.[155] (Fig. ~~27~~ 246).

Shivaji managed to keep two key-forts of the Maval-territory i.e. Rājgaḍ and Toraṇā in his hands. He could capture Rohiḍā if he could retain Rājgaḍ and

Toraṇā under him. The forts like Lohagaḍ, Isāgaḍ, Tung and Tikoṇā, although important on the ghatmatha, could be regained if the Bor pass was kept under constant. watch. The forts like Sudhāgaḍ, Sārasgaḍ remained with Shivaji. It was possible for him to keep adjoining territory including the Bor pass under his thumb from these forts. Although the number of forts was twenty-three, it should be noted that the forts like Vajragad, Bhaṇḍārgad, Paḷasgad, Khadkāḷā were merely sub-forts. On the other hand the forts retained by Shivaji were key forts of his territory. Rājgaḍ, Toraṇā, Rāyagad and Asherī proved helpful to build up the Maratha state.

The forts like Sudhāgaḍ, Sarāsgaḍ were the guard-forts of the nearby passes and thus more important. Although Purandar and Koṇḍaṇā were important, the position of Rajgad-Toraṇā and Rāyagāḍ-Lingāṇā was more secure. It is, therefore, clear that although the Mughals acquired 23 forts by the treaty of Purandar, the core of swaraj remained with Shivaji, (Fig. ~~27~~ 24b).

In the course of negotiations, Jai Singh might have demanded first all the forts.[156] Jaya Singh wrote in his despatches to the Emperor, 'I declined to abate a single fort.'[157] But gradually Jaya Singh accepted 23 forts to be ceded to the Mughals, 12 forts to be retained with Shivaji. After concluding the treaty Jai Singh writes to

Aurangzeb, 'Now we have taken away from him (Shivaji) the forts not one of which had hitherto been besieged and taken by anybody, and now we have hemmed him round, like the centre of circle.'[158] Further he writes, 'out of the twelve forts left in the possession of Shivaji, five lay in between the imperial forts, that in view of the sedition, mischief and unreliability of Shivaji, the~~r~~se should not have been left to him, and that the entire territory should have been cleansed of the stains of his existence.'[159] (Fig. ~~27~~ 24b).

It seems that Jai Singh did not recognise the significance of the core of Swaraj and twelve forts remained with Shivaji.

Shivaji was very keen about these twelve forts. Aurangzeb was quite aware of the strategic importance of these forts. When Shivaji visited Agra, he did his best to persuade Shivaji to hand over the keys of his forts.[160] ~~from Shivaji.~~ ~~160~~ Because he had fully realised that the strength of the Maratha king lay in his forts. Shivaji, however, refused politely to hand over the keys of his forts.[161]

It should be noted here that Shivaji recaptured almost all the forts ceded to the Mughals after his escape from Agra. Thus the victory of Jai Singh proved to be a temporary victory.

Aurangzeb's campaign

In the year 1680, Shivaji passed away and his son Sambhaji coronated himself on the 16th January 1681.[162] Akbar, the son of Aurangzeb, rebelled against him and fled to Sambhaji for shelfter in the same year. Aurangzeb realised the gravity of this situation. He sent his second son Āzamshāh in pursuit of Akbar, and thereafter himself followed him after making necessary arrangements for security of his Northern Empire. He reached Burhānpur on the 13th November 1681.[163] From this day to the end of his life (1707 A.D.) Aurangzeb was engaged in his Deccan campaign nearly for 26 years. During this quarter century, two Maratha kings viz. Sambhaji (1689), and Rajaram (1700) passed away, numbrous villages were burnt and raided by the Mughals, several forts were besieged and captured by Aurangzeb and his captains with the help of all tactics including treachers and bribery. Aurangzeb himself frequently shifted his camp from one place to another and suffered hardships in the mountainous area of the Deccan; his army suffer~~r~~ed too, and several able Mughal officers passed away. But all his attempts proved futile and the Marathas became gradually aggressive at the time of his death. It may be noted that Tārābāi; the brave and ambitious wife of Rajaram, struggled for seven years with the Mughals after the death of her husband and turned the tide of the Mughal~~s~~ aggression.

First Phase of the Campaign (1681 - 1689)

On reaching Burhāṇpur, Aurangzeb appointed Hasan Ali Khan for carrying on the military operations in the region of the Konkaṇ. He ordered Bahādurkhan to shift his camp from Aurangabad to Bahādurgad on the banks of the river Bhīmā. Aurangzeb himself reached Aurangabad in the month of March 1682. By this time Hasan Ali Khan raided the territory of Kalyāṇ and Bhivanḍī. Bahādurkhan, on the other side, ruined Shivāpur. Thus the campaign was already launched.

On reaching Aurangabad, Aurangzeb ordered Shahābuddin to besiege the fort of Rāmsej, 14 miles away fromNasik. Accordingly, the fort was besieged in the month of April 1682.[164] An interesting account of this siege is ~~described~~ given by Khāfīkhān[165] and Bhīmsen Saxenā.[166] Both of them were eye-witnesses of the siege of Ramsej. Here the Mughals constructed huge tower, mounted guns thereupon and tried to reduced the fort. The siege was continued for six months and in October 1682 the Mughals withdrew the siege without any gain.[167] It is interesting to note that the garrison of Rāmsej fort used the wooden guns of great calibre.[168]

The Mughals tried to reduce the territory of the Konkaṇ when the siege of Rāmsej was in progress. At this time of critical juncture, Sambhaji, the king of the Marathas, was engaged against the Siddis of Janjirā. He was busy with the siege operations of the fort Daṇḍā Rājāpurī.[169] When he learnt about the activities of the Mughals in the Konkaṇ, he himself rushed back and compelled the Mughals to retire from the Konkaṇ by April 1683.

In the year 1682 (June), Aurangzeb despatched his son Muazzam to the Karanāṭak province. We learn from the Jedhe Shakāvalī that Hambīrarao, the Maratha, commander-in-Chief, checked Muazzam at Kolahapur and compelled him to retire back.[170] In the meantime, Aurangzeb tried to make alliance with the Portuguese against Sambhaji. He personally wrote to Fransisco de Tavora Conde de Alvor, the governor of Goa, and extended his hand for coalition.[171] It is noteworthy that Sambhaji also induced the Rajputs against Aurangzeb by writing a letter to Ramsingh, the son of Jai Singh.

When Muazzam returned from Karanṭak without any gain, Aurangzeb sent him to reduce the Konkaṇ, in Sept.

1683.[172] Īswardās Nāgar and Manucci have left an interesting account of Muazzam's Konkaṇ expedition. Both of them were present for some time during the military operations conducted in the Konkaṇ. Muazzam suffered hardships and returned back without any gain. It seems that all the attempts of Aurangzeb upto 1685 proved abortive.

From the above discussion it is clear that Aurangzeb's strategy was to establish his hold in the Bāglāṇ (Nasik dist.) by capturing the fort Rāmsej and at the same time reduce the territory of the Konkaṇ. Here Aurangzeb partly used the strict blockade system as Jai Singh did in 1665.

He ordered his officers to besiege the fort Rāmsej in Bāglāṇ and of the same time launched the Konkaṇ expedition. The main cause of expedition in Bāglāṇ was that the important forts from that province had been captured ~~the~~ by Shivaji in 1670, after his escape from Agra. ~~launched~~.

Thereafter the Mughals tried to push down the Marathas from Bāgalān. But they could not succeed and at the time of Shivaji's death almost all the forts of Bāgalān region except the Mulher fort were in the hands of the Marathas. From strategic point of view, the

Bāgalāṇ region was most important. While going to Surat, the Marathas generally preferred the route through Bāgalāṇ. The fort Sālher was important one and here the Marathas used to store the booty plundered from Khāndesh. The important military route to descend into the Konkaṇ was through Bāglāṇ. Prince Akbar, the son of Aurangzeb, descended into the Konkan through this route and joined the Marathas. So it was necessary for Aurangzeb to establish his hold in Bāglāṇ in order to achieve success in the Konkaṇ expedition.

We have already seen that Jai Singh purposely avoided to undertake the expedition of the Konkaṇ. Now Aurangzeb wanted to reduce the territory of Konkaṇ in the first place. The reason is found in the change of political situation after 1670. At the time of Jai Singh's expedition, the capital of Shivaji was at Rājgaḍ. But Shivaji shifted his capital from Rājgaḍ to Rāyagaḍ after his return from Āgrā,[173] because this fort was situated in the heart of the Konkan. This was the main reason that compelled Aurangzeb to open the campaign in the Konkaṇ. Secondly, Prince Akbar, rebelled against his father and joined Sambhaji at Pālī in the Konkaṇ. It was one of the motives of Aurangzeb to punish his rebel son. Thirdly, Sambhaji himself was busy with the affairs of the Siddīs. In January 1682, he besieged the Janjirā fort. This was the best opporunity for Aurangzeb for reducing the Marathas. By making a strict blockade in Bāglāṇ, Aurangzeb planned to attack ~~on~~ the Rāygaḍ. But it was very difficult to conduct the military operation in the Konkaṇ. Muazzam returned without any gain and Shahābuddin could not reduce the fort Rāmsej. Aurangzeb's' blockade system' thus collapsed.

In 1683, according to the instruction of Aurangzeb, Shahābuddin seized Poona.[174] It was the plan of Aurangzeb to send Shahābuddin in the Konkaṇ and strengthen the position of Muazzam. Accordingly Shahābuddin and Dalapatrāi descended the ghat and dashed to the fort Rāy~~o~~gaḍ.[175] They ruined the village Nijāmpūr, 8 Kms. away from Rāy~~a~~gaḍ. They were suddenly called back by Aurangzeb.[176] Because he changed his plan and decided to reduce the other two enemies i.e. the sultans of Golkondā and Bijapur.

The reasons for first failure of Aurangzeb in his Deccan expedition can be analised in the following manner:

a) The theatre of war was extended right from

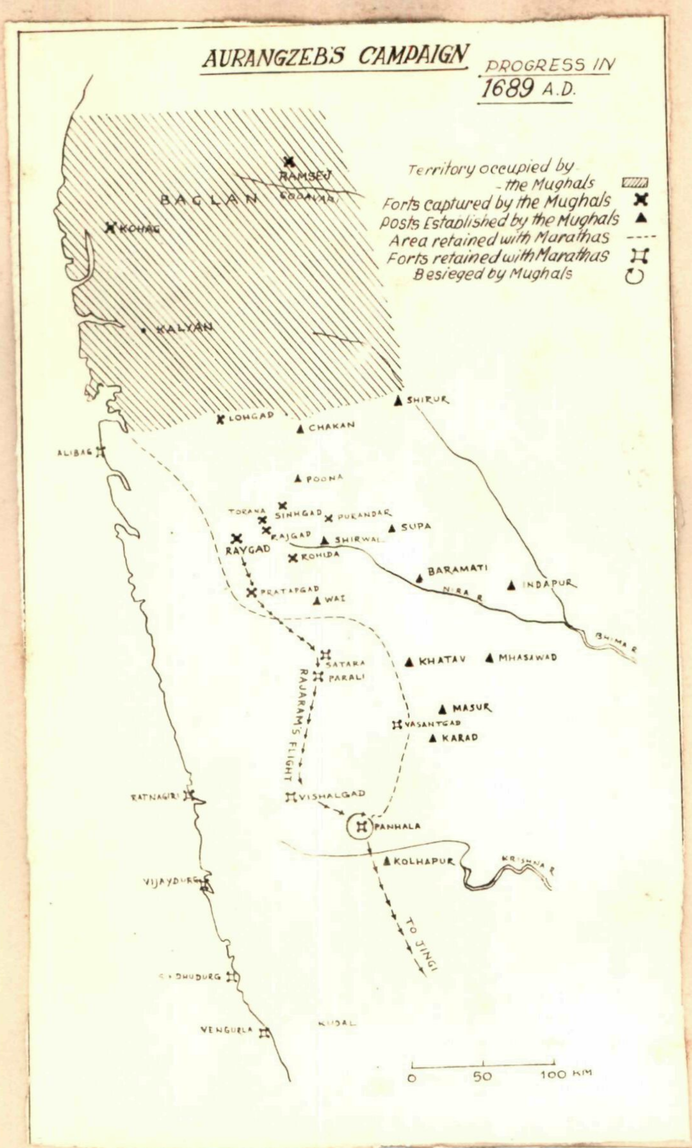
Rāmsej to Rāyagaḍ or from Bāglāṇ to Konkaṇ.

b) The region of the Konkaṇ was not favourable for strict blockade system.[177]

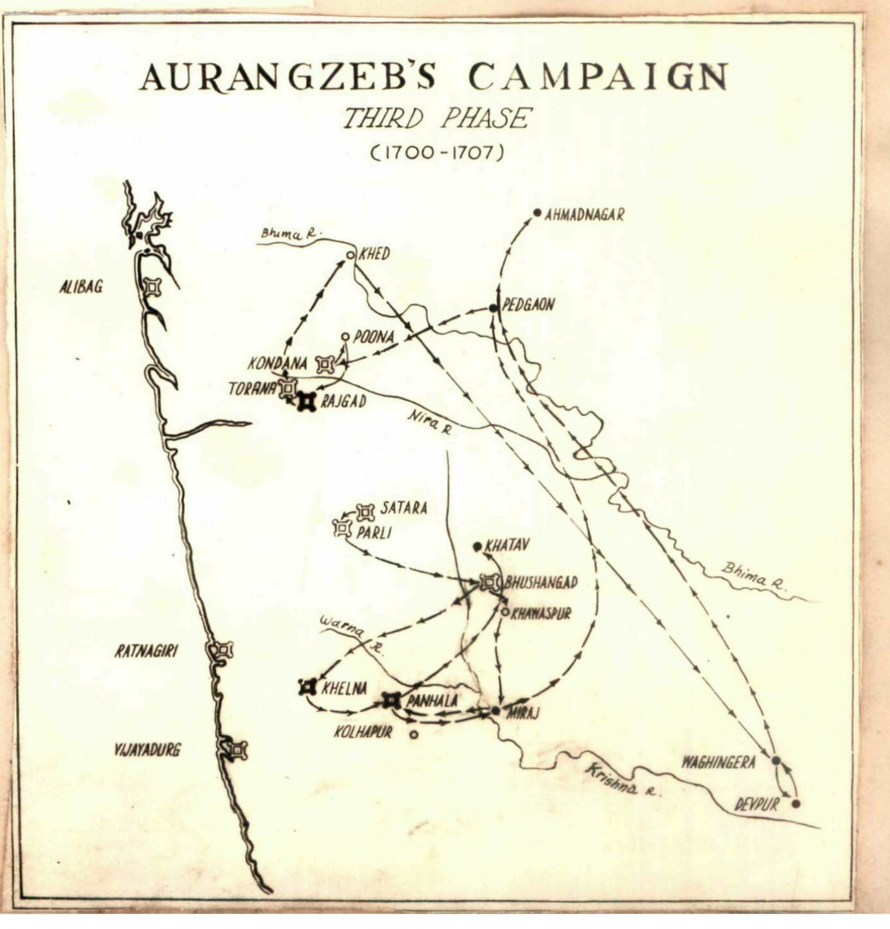
c) The strength of the Maratha army under Sambhaji had increased. Sambhaji kept a de~~f~~tachmeat of 5000 ~~in~~ near the ~~p~~Pen river. He also kept special troops of 15000 in between Chaul and Nāgothāṇā. In the ghat region he kept a division of 20,000 from Sātārā to Foṇḍā. Besides, the roving bands of the Marathas were scattered in Nasik, Ahmadnagar and Aurangabad districts. All forts were provided with sufficient militia. Under such circumstances, the Mughal officials like Muazzam, Shahābuddin, Bahādurkhan, etc. failed to achieve their target. Consequently Aurangzeb left the Konkaṇ-Bāglān expedition incomplete and decided to turn his attention towards Bijapur and Golkonda. We learn from Futuhat-i-Ālamgirī that Aurangzeb was disappointed in November 1683, as he could not defeat the Marathas.[178]

From 1685 to 1687 Aurangzeb concentrated his power on reducing two states, Bijapur and Golkonda. It is not necessary to go into details of his military operations during this period. It is to be noted here that although Aurangzeb turned his attention towards Bijapur and Golkonda, he never neglected totally his task in the Konkaṇ. We learn from Tarīkh-ī-Dilakashā that Gaziuddin (Shahābuddin) burnt

Fig. 25


AURANGZEB'S CAMPAIGN
PROGRESS IN 1689 A.D.
Territory occupied by the Mughals ▨
Forts captured by the Mughals ✖
Posts Established by the Mughals ▲
Area retained with Marathas ----
Forts retained with Marathas ⌘
Besieged by Mughals ◯
RAMSEJ
BAGLAN
GODAVARI
KOHAG
KALYAN
SHIRUR
LOHGAD
CHAKAN
ALIBAG
POONA
TORANA
SINHGAD
PURANDAR
SUPA
RAJGAD
SHIRWAL
RAYGAD
ROHIDA
BARAMATI
INDAPUR
NIRA R
PRATAPGAD
WAI
BHIMA R
SATARA
PARALI
KHATAV
MHASAWAD
RAJARAM'S FLIGHT
MASUR
VASANTGAD
KARAD
RATNAGIRI
VISHALGAD
PANHALA
KOLHAPUR
KRISHNA R
VIJAYDURG
TO JINGI
SINDHUDURG
KUDAL
VENGURLA
0
50
100 KM

a


AURANGZEB'S CAMPAIGN
THIRD PHASE
(1700-1707)
AHMADNAGAR
Bhima R.
KHED
ALIBAG
PEDGAON
POONA
KONDANA
TORANA
RAJGAD
Nira R.
SATARA
PARLI
KHATAV
BHUSHANGAD
Bhima R.
KHAWASPUR
Warna R.
RATNAGIRI
KHELNA
PANHALA
MIRAJ
KOLHAPUR
VIJAYADURG
WAGHINGERA
Krishna R.
DEVPUR

b

the Vāḍī at the foot of Rāyagad.[179] No contemporary record supports this statement. On the other hand it is mentioned in the Jedhe Shakāvali that Shahābuddin left Poona and rushed to Gāngolī through the Borghāt. But Kavi Kalash defeated him and forced him to retire above the ghat.[180] Thus the attempts of Shahābuddin were all in vain.

In the year 1688, Aurangzeb reopened his compaign against the Marathas. Forts like Viśrāmgaḍ, Kulanggaḍ and Harīshgad were captured by the Mughals. Several posts were established throughout the 'ghāṭmāthā.' But the whole Konkan was still intact and the key forts of the Marathas like Rājgaḍ, Rāyagaḍ, Panhāḷā, Viśālgad, Purandar were yet in the hands of the Marathas. In the meantime, while on his way to Rāyagad, Sambhaji was captured alive by Aurangzeb who beheaded him at Tuḷāpūr (Poona dist.) in March 1689. Thus the first phase of Aurangzeb's campaign ended. His long-cherished dream had been accomplished. But it is really an irony of fate that this phase of triumph over Sambhaji proved to be the beginning of his disaster.

Second phase of the campaign

After the death of Sambhaji Aurangzeb sent Zulfikar-Khan on the 25th March 1689 to reduce the fort Rāyagad.

Siege of Rāyagaḍ

On his arrival at Mahāḍ, 12 miles away from Rāygaḍ, Zulfikarkhan destroyed many villages and the Maratha posts lying in the vicinity of the fort.[181] Thereupon he besieged the fort. During the operations of the siege, the Mughals constructed huge towers and started severe bombardment.[182] Meanwhile Rajaram fled from Rāyagaḍ on the 5th April 1689.[183] When he settled himself at Panhāḷā, he tried to defend the fort Rāyagaḍ by sending succours. Unfortunately his attempts proved futile and he found himself in a critical position, when Panhāḷā was besieged by the Mughals. (Fig.25a). According to the Jedhe Śakāvali Rajaram rode from Panhālā on the 26th September 1689.[184] The siege of Rāyagaḍ was still in progress. After the departure of Rajaram from Panhāḷā towards Jinjī, the Marathas settled terms with the Mughals and the fort of Rāyagaḍ surrendered on the 6th November 1689. Thus the capital fort of the Marathas was reduced by the Mughals. Shivaji (Shahu), the son of Sambhaji, was made Manasabdar of 7000 troops.[185]

The year 1689 was most favourable and remarkable in the life of Aurangzeb. According to the Jedhe Śakāvali, the Mughals captured all the Maratha forts during this year.[186] We learn from the Persian sources that the Mughals successfully captured the important forts of the Marathas viz. Pratāpgaḍ, Rājgaḍ, Sinhgaḍ, Toraṇā, Rohiḍā, Lohagaḍ, Purandar, etc. by the year 1689. Several posts were established. A casual glance at the Plan (Fig. 25a) will reveal the fact that almost all the Maratha country was encircled by the Mughals even before the departure of Rajaram to Jinji. Thus at the end of 1689 Aurangzeb established hold on the Maratha country.

On the 15th November 1689, Rajaram reached Jinji safely. He was welcomed in the Karnātak and received speical attention at the hands of the queen of Bednūr.[137] An interesting account of his journey to Jinji is given by Keshav Pandit in his 'Rājārām Charitam.'

After the departure of Rajaram the Marathas were left in a very miserable situation. Most of the hill forts and practically the whole Maratha country was now in the hands of the Mughals. The child king Shahu and his mother Yesūbāi were the captives of Aurangzeb. Shortly after the fall of the Rāyagad, Aurangzeb sent Zulfikarkhan towards Jinji in chase of Rajaram. Thus Aurangzeb's long-cherished dream was nearly realised.

The capture of Rāyagad

Zulfikarkhan captured the fort Rāyagad by using the method of strict blockade. Ishwardās Nāgar gives an account of the siege of the Rāygaḍ fort.[188] From this we learn that the garrison within the fort tried to defend the fort as well as possible. The roving bands of Hambirrao, the Maratha captain, attacked very suprisingly the Mughal army in the vicinity of the Rāyagaḍ.[189] But Zulfikarkhan defeated Hambirrao and forced him to retire. Some other roving bands which were appointed to cut off the supplies of the Mughals also re~~p~~treated.[190] Thereupon Zulfikarkhan blocked all the routes of egress and ingress. Huge towers were constructed in front of the fort and sevre bombardment was made,[191] and finally the garrison surrendered the fort. Here it may be noted that when Rajaram fled from Rāygaḍ Zulfikarkhan did not attempt to chase him. In his letter to Vazir Asadkhan, his father, Zulfikarkhan justified his strategy and reason for avoiding the chase.[192] He expected the return of Rajaram at any moment. The siege of the fort was more important to him than the chase of Rajaram.[193]

New strategy of the Marathas.

The fall of Rāyagaḍ was the greatest loss to the Marathas. Now their country's fortune was at the lowest ebb. But the Maratha leaders under the organisation of Rāmchandra-Pant Amātya, the able minister of Rajaram, pledged themselves to a heroic effort to save the country from the Mughals. The Maratha captains carried on a guerilla warfare and caused great losses and disturbance to the Mughals. Now their strategy was to widen the area of their military operations and divide the attention of Aurangzeb between Maharashtra and the Karnātak at the same time.

This new strategy confused Aurangzeb. He despatched Zulfikarkhan to Jinjī in pursuit of Rajaram. The theatre of war was now extended from Panhālā to Jinjī. Aurangzeb decided to select a place close to the border of Maharashtra and Karnātak for his encampment. Accordingly the place 'Galgalā' in Bijapur district was selected and the Emperor shifted his camp from Koregāon to that place. This was the greatest mistake done by Aurangzeb. He encamped at Galgalā till 1695. During this period, the Maratha captains seized the opportunity and recaptured several forts from the Mughals. In the year 1690, the Maratha captains like Rāmachandrapant, Santājī Ghorpadé, Dhanājī Jadhav, Shankarājī, etc. defeated the Mughals on various fronts. Amātya has described his policy in one of his letters.[194] He instructed to the Maratha leaders that all the forts which were captured by the Mughals should be recaptured, and all the posts established by the Mughals should be demolished.[195]

In 1690, Amātya captured Pratāpgad and Jedhe regained Rohiḍā. Dhanāji and Santāji destroyed the Mughal posts in Sātārā region.[196] The Maratha captains ruined the Moghal subha of Khatāv.[197] The forts like Toraṇā[198] and Rājgad[199] were recaptured. Shankarāji Nārāyaṇ captured the forts like Guṇavantgaḍ, Sundargaḍ, Dantpātaṇ, etc.[200] The year 1690 was remarkable in the struggle for independence.

In 1692 the Marathas gave great blow to the Mughals by capturing the fort Panhāḷā.[201] In 1693 the Sinhgaḍ was retaken.[202] In 1694 Shankarāji Nārāyaṇ regained the forts Toraṇā and Kārigaḍ.[203] Here it may be noted that most of these forts were recaptured by the Marathas by means of ropes and ladders.

In the year 1698 the Marathas rushed into the Khandesh and tried to siege Burhānpūr.[204] In 1699 Krishna Sāvant, a Maratha leader, crossed Narmadā and created a terror.[205]

Aurangzeb left Galgalā and settled his camp again in Maharashtra[206] at Brahmapurī in district Sholapur. From 1695 to 1699, he conducted military operations in the teeth of severe Maratha opposition.

In 1699, the Emperor captured Vasantgad.[207] He proceeded further and besieged the fort of Satara. An interesting account of this siege has been given by Khāfīkhān. When the siege of Satara was in progress, Rajaram returned from Jinjī.

Activities in Karnāṭak

We have already seen that Rajaram left Panhāḷā for Jinjī on 26th September, 1689. The reason for the flight of Rajaram should be explained here. Rajaram was forced to leave the Swaraj territory, not for any personal reasons, as it is claimed by some,[208] but for political reasons. The political situation in 1689 was not favourable to the Marathas. Almost all the forts except Panhāḷā Vishāḷgaḍ were captured by the Mughals, (Fig. 25 a). The capital Rayagaḍ was also besieged. The only alternative before him was to take resort to Jinjī a far away place from the Mughal menace. A glance at the plan (Fig. 25 a) will reveal that Rajaram survived because he fled. Further it was the wise strategy of the Maratha leaders to divide the enemy's forces by transferring a part of the Maratha activities to the far-off East Coast.[209] It is mentioned in 'Rājārām Charitam' that Pralhād Nirājī advised Rajaram to retire in the Karnāṭak province and try from there to safeguard the Swaraj.[210] In Madras Diary it is reported that the policy of Rajaram was to divert the Mughal army from his kingdom of Poona and join with several Hindu Nayaks and raise a considerable army to retake the Golkonda and Bijapur kingdoms.[211]

As anticipated by the Marathas, Aurangzeb divided his forces. He despatched some troops in chase of Rajaram and he himself followed them.[212] Sāqi Mustād Khān furnishes details of the chase made by the Mughals.[213] At the end of August 1690, Zulfikarkhan laid siege to Jinji.[214] But Rajaram was reinforced by Nemāji Shinde and others with 2,000 cavalry and expelled the Mughals from the trenches.[215] We get a very graphic account of the siege of Jinji described by Bhimsen Saxena,[216] who was present on the spot. The plot and the counterplot of Shāhajādā Kāmbaksh and Zulfikarkhan puzzled the Mughal army. Meanwhile Rajaram's position was strengthened as Dhanāji Jādhav and Saninji Ghorpade, with sufficient forces joined him. As a result of these developments the Mughals were compelled to withdrew the siege in Jan. 1693.[217] Zulfikar-Khan now concentrated his attention on the revolts of landlords in Tāmilnāḍu. He crushed the revolts and annexed the smaller kingdoms till June 1694. We find that Zulfikar-khan again re-opened the campaign against the Marathas in November 1695 and besieged the fort Vellore.[218] In the same month Santājī Ghorpaḍe besieged Doḍḍerī and compelled the Mughals under Qāsim Khān to make a treaty on the terms dictated by himself. An interesting account of the siege of Doḍḍerī is given by Khāfīkhān.[219] On the 3th November 1697, the Mughals again besieged Jinjī.[220] In this siege, it is said, that Zulfikārkhān helped Rajaram indirectly to flee from Jinjī by lengthening the siege operations.[221]

Thus we find that the strategy of dividing attention of Aurangzeb adopted by the Marathas ~~strategy of dividing the attention of~~ proved extremely succesful.

On his arrival in Maharashtra Rajaram unfortunately died at Kondāṇā (Sinhgaḍ) on 3rd March 1700.[222] Here ends the second phase of Aurangzeb's campaign.

Third Phase of Campaign

As Shivaji, the son of Rajaram, was a minor, the responsibility of the Maratha kingdom rested with the dowager queen Tārābāi. She concentrated all power in her own hands and prepared herself to face the expedition of the Emperor.

When Rajaram died at Sinhgaḍ Aurangzeb was busy with the siege of Sātārā. On the 6th March 1700, he heard the news of Rajaram's death.[223] He ordered to beat the drums of joy as he thought that it would not be difficult now to overcome two young children and a helpless woman.[224]

In April 1700, Aurangzeb captured the fort Sātārā and renamed it as Āzamtārā. Now he launched a fresh expedition of reducing the Maratha forts, ~~(Pl.~~ (Fig.25 b). In June, the Mughals reduced the fort of Paralī by means of bribery. While going to Bhūshangaḍ, the Mughal army faced maximum sufferings while crossing the flooded Krishṇā.[225] During the halt at Khawāspūr,[226] on the bank of the River Māṇ, the whole camp was washed away by the floods and Aurangzeb's knee was dislocated while escaping from the wrath of the flood.

He turned his eyes then to Panhāḷā. By applying strick blockade around the forts Panhāḷā and Pāvangaḍ,[227] Aurangzeb continued his siege upto May 1701. Finally, he bribed the Marathas and reduced the forts.[228] In Jan. 1702, he besieged Khelnā and captured it by means of bribery in June 1702.[229]

In December 1702, Aurangzeb besieged the fort Sinhgaḍ and reduced it by means of bribery in April 1703.[230] In 1704, the Mughals captured the fort Toraṇā by means of rope-ladders.[231] In the same year the forts Rājgaḍ and Lohagaḍ were captured by the Mughals. Meanwhile the Berads in the North Konkaṇ rebelled and Aurangzeb left his compaign unfinished. He rushed to Wākin Kheḍā[232] and during the period of his absence, the Marathas recaptured the forts Sinhgad,[233] Lohagad[234] and Rājmāchī[235]. The forts like Rājgaḍ and Vasantgaḍ were also regained by the Marathas in 1706.

After reducing the fort of Wākinkheḍā and crushing the revolt of the Berads,[236] Aurangzeb returned to Ahmednagar. He had now campleted eightyeight years of his age. For twentysix ~~geews~~ years he was actually restless to reduce the Maratha country. In spite of well equipped army and refined artillery, Aurangzeb could not overcome the Marathas. On the 10th February 1707, Aurangzeb passed away at Ahmednagar, and his ambition of subjugating the Marathas remained unfulfilled for ever.

Thus ended the third phase of Aurangzeb's campaign. In the third phase we have seen that several forts were reduced by Aurangzeb by means of bribery.

Khāfīkhān describes:-

> ' The clemency and long suffering and care of the Emperor were such that, when he ascertained that several fortresses had been long and vigorously besieged by the forces appointed to the duty,

and that the garrisons were in difficulty, he paid sums of money to the commondants, and so got the forts into his possession.'[237]

After reducing the forts, the Mughals could get almost nothing. Moreover, it was difficult for them to hold the hill forts for a long time in the teeth of Maratha opposition. The Marathas could easily regain the forts by means of rope-ladders.

The defence ~~facts~~ tactics of the Marathas were refined one. They used to bombard from the fort itself and at the same time roving Maratha soldiery in the field used to drive away the besieging forces. The garrison adopted the strategy of holding the fort upto the Mansoon and thereafter they used to surrender it if necessary by accepting a handsome price for it.

A comparative study (Appendix) of the Mughal and Maratha methods of reducing the forts will reveal the fact that the Mughals spent huge sums for bribing the Maratha chiefs. Their methods of reducing the forts viz. constructing the huge siege towers, excavating tunnels for mines were extremely costly and unfavourable in the hilly region. On the other hand the Marathas used to regain the ~~the~~ fort with the simple method of sealing ladders.

When ~~When~~ there was some relaxation in the vigilance of the enemy. The Mughal sieges were dragged for months and years, but the Marathas could finish the job in a couple of days or within a short period.

Further it may be noted that a corresponding change in the Maratha equipment was visible during the expedition of Aurangzeb. Manucci observes -

> ' At the present time, they (the Marathas) possess artillery, musketry, bows and arrows, with elephants and camels for their baggages and 'tents'.[238]

The strength of the Maratha cavlary and infrentry increased to a great extent after 1690. We find that Santāji Ghorpaḍe was despatched to Jinjī with 15,000 horse~~s~~ in 1692.[239]

The entire history of the Maratha War of Independence from 1639 to 1707 is a story of the struggle on the part of the Marathas to defend the forts from the Mughals. The mighty forces of the Mughals did succeed in capturing a number of forts, but their victory seemed to be a short-lived one because, the Marathas did not spare any efforts to recapture those forts.

To sum up, Shaistekhan could not succeed as his campaign was unplanned. Further he did not recognise the importance of the chain of forts.

Jai singh succeeded in defeating Shivaji. His 'strict blockade method' proved effective. But he could not recognise the importance of twelve forts (core of Swaraj) retained with Shivaji. So his victory proved temporary. After the escape ~~of~~ from Agra, Shivaji regained all the forts. Further he two formed more chains of forts.

Aurangzeb failed to overcome the Marathas. Jai Singh's strict blockade method was now outdated. The theatre of war was extended from Panhālā to Jinjī. The capital of the Maratha king was now in the heart of the Konkaṇ. The chain of forts along the sea shore helped the Marathas to snatch away the supplies of the Mughals as well as to send supplies to Rajaram at Jinji. Third chain of forts extremely helped Rajaram to divert the forces of the Mughals from Maharashtra to Karnatak.

Thus, this account of the sieges, and the number of forts connected with them would emphasise how the Marathas treated forts as objects of pride. The importance of forts has been rightly pointed out by Amātya in the following word,*

> '... that forts and strongholds alone mean the kingdom; that forts and strongholds mean the

treasury; that forts and stronghold mean the prosperity of the kingdom; that forts and strongholds mean our places of residence; that forts and strongholds mean our places of peaceful sleep; nay, that forts and strongholds mean our very protection of life."[261]

Notes

1. Petrariae - The engines casting huge rocks.
2. Ballistae - The engines casting stones of about half cwt.

   Catapults - The engines casting smaller stones.
3. As BK. II, Ch.XVIII, 101.
4. Toy Sidney - A History of fortification, P.160.
5. Makhdoomee M.A. - 'Mechanical Artillery in medieval India,' J.I.H. Vol. XV, Pl. 1. P.192.
6. Ibid., P.191.
7. Ibid., P.191.
8. Ibid., P.189.
9. ~~C.H.I.~~ Toy sidney — The strongholds of India, P.9
10. We find one instance that Abdullāh Qutbshāh (1628-1672) ordered to place the siege engines 'Minijaniqs' or 'catapults' on fort when there was danger of the Deccan being attacked by the Mughals.
    Please see : Shervani A.K., Abd'ul-lāh Qutbshah — J.I.H. XIV, Part I.
11. Irvine W. - The army of the Indian Moghuls, P.131.
12. MMS. P.95.
13. Guns carried on elephants. RE.P.10.
14. Guns carried on camels RE, P.10.
15. Small cannons. Rāmchāngi = Rām-Jānakī.
16. Zambruk, the word dervies from Zambura, a bee or wasp. The name was given probably in allusion to its sound when fired, or its power of stinging or wounding (Irvine-Op.Cit. P.Chap X

17. The Army of the Indian Moghuls, ~~P.~~ Chapt. X
The writer himself identified some pieces of so called rocket stored in the Museum at Bidar fort.

18. AS, BK. XIII, Ch. IV, 403.

19. On Alexander's Track to the Indus, P.45.

20. A History of Fortification, P.23.

21. SCP., P.160 (RVK-7-97).

22. SCVS, III Pp.24-25.

23. Ibid. Pp 24-25

24. Ibid. Pp 24-25

25. Ibid. Pp 24-25

26. MMCP, P.81.

27. Ibid., P.82.

28. MA, P.79.

29. Pagadi S.M. - Hindavī Swarājya Aṇī Mogal-P.215.

30. Ibid., P.215.

31. AS, BK., XIII, Ch. IV, 402.

32. A History of Fortification, P.36.

33. Irvine William - Op. Cit., P.275.

34. SCVS. III, P.25.

35. MA, P.80.

36. Ibid., P.105.

37. Ferishtā, II, P.230.

38. MA, P.79.

39. ERS, Vol. II, P.47.

40. MA, P.80.
41. Grant Duff, P.110; Patrasārsangrah, L. 1292-93, 1314.
42. Sabhasad, P.52.
43. SCS, Vol. V, P.138.
44. SCP (GPS), P.68.
45. SCP (JS) - Pp. 37-38. Kārīgad = Kuwārīgad (Poona dist.)
46. Masir - P.281.
47. Ibid. - P.271.
48. MSY - P.37.
49. AS - BK XIII, Ch. IV, 402.
50. Śivabhārata, 13.79.
51. BRS, Vol. II. Pp.53-54.
52. MMS (HA) - P.94.
53. Māsir - P.249.
54. Indian Historical Records commision- Proceedings and meetings - Vol. IV, P. 5.
55. Historical and descriptive sketchy Nizam's Dominion, Vol. II, P.310.
56. Indian Historical Records commission - Proceedings and meetings Vol. IV, P. 5.
57. Narris's embasy to Aurangzeb. P. 287
58. SCVS. III. P.25.
59. SCP. P.160 (RVK-7.95)
60. SCVS. III P.67.
61. On Alxander's track to the Indus, Pl.121 .
62. MSY, P.37.
63. पर्जन्य पडेपर्यंत पांडवायवा होता ही गोष्ट न केली, (Hindavi Swarājya āni Mogal, P. 265); BISMQ. Yr. 7, P. 75

64. SCP P.160 (RVK 7.196)
65. Shivaji Souvenir, P. 160.
66. Māsīr. P.268.
67. Irvine : Op.Cit. P.270.
68. Ibid. P.270.
69. Grant Duff, P.165.
70. Twenty two miles east of Chitaḷdurg.
71. Māsīr - Pp. 227-230.
72. Ibid. Pp.227-230.
73. Ibid. P.230.
74. SCP. (JS). P.19.
75. Ibid., P.19.
76. Modak G.V. - Battle of Pratāpgad-Shivaji Souvenir-P.165.
77. Sarkar - Shivaji and his Times P.60.
78. Chapter IV of present work P. 69.
79. Capt. Modak observes, 'The geographical position of the district of Pratāpgad and its vicinity is typical and Marathas alone could offer battle there.' - Battle of Pratāpgad. Shivaji Souvenir - P.162.
80. SCVS - III, P.20.
81. Sabhasad - Pp.28-29.
82. SCVS. III P.20.
83. Ibid., P.20.
84. Ibid.,P.20.
85. Ibid.,P.21.
86. Ibid.,P.22.

87. Ibid., P.23.

88. Ibid., P.23 - Rājāvah = Rājewadi (?) (Fig. 24 a).

89. Ibid., P.23.

90. Ibid., P.23.

91. Ibid., P.23.

92. Ibid., P.23.

93. Ibid., P.24.

94. Ibid., P.24.

95. Poona Gazetteer, P.121.

96. SCVS III, P.24, Chitnis. P.130.

97. The names of the officers holding the morchās are given in Ālamgirnāma. Pl. See SCVS. III, P.24.

98. SCVS. III, P.24. The period of 56 days is corroborated by Khafikhan - SCVS. III, P.67. According to 91 Q. Bakhar the Siege was continued for nine months. Q.43.

99. According to 91 Q. Bakhar (Q.43) and Chitnis (P.130), the bastion of north-eastern corner was blown up.

100. SCVS. III P.25, 67.

101. Ibid. P.24.

102. Jedhe chronology - Shivaji Souvenir - P.14.

103. SCVS., III P.27.

104. Ibid., P.27.

105. MMS (HA), P.35.

106. Ibid. P.85.

107. Marāthyānchyā Itihāsāchī Sādnane - Portuguese Daftar, Vol. III P.9.

108. Shivaji and His Times - P.105.

109. MMS (HA) - P.35.

110. Storia - ii Pp.132-33.

111. MMS (HA), P.91.

112. Ibid., P.87.

113. Ibid. P.87. In Alamgīrnāmā, instead of Tāddurg, Naragurg is mentioned. Tāddurg = Tikoṇā or Vitaṇḍgad.

114. MMS (HA) P.88.

115. Ibid., P.87.

116. Ibid., P.88.

117. Ibid., P.88.

118. Ibid., P.87.

119. Ibid., P.90.

120. Ibid., P.89.

121. Ibid., P.88.

122. Ibid., P.83.

123. Ibid., P.93.

124. Ibid., P.92.

125. Ibid., P.92.

126. Ibid., P.91.

127. Ibid., P.91.

128. Ibid., P.93.

129. Ibid., P.93.

130. Ibid. P.94 - The description Purandar fort is given in Chapter IV as well as in VII.

131. MMS (MA) P.95.

132. Even in 1817 British seized Vajragad first and then made Purandar untenable for the Marathas.

133. MMS (HA) P.95.

134. SCVS III P.30.

135. MMS (HA) P.95.

136. Ibid., P.96.

137. Ibid., P.95.

138. Ibid., P.95.

139. Ibid., P.95.

140. SCVS. III, P.30 MMS (HA) P.96.

141. SCVS III, P.31.

142. SCVS III, P.31.

143. MMS (HA), P.96.

144. Ibid. P.100.

145. गडास न लागावे. मुलुक काबीज करावा. गडास सामान जाऊ न द्यावे म्हणजे गड आपोआप येतील. (Sabhasad - P.37).

146. MMS (HA) Pp.100-101.
SCVS III, Pp.32-33.
MMS (KS) - P.52.

147. MMS (HA) Pp.96-97, 102.

148. SCVS. III, P.34.

149. Ibid. P.34.

150. MMS (HA), P.102.

151. MMS, (KS) - P.62.

152. SCVS III, P.36, Sabhāsad P.39.

153. गड किल्ले त्यास केव्हा घेतो, तेव्हा बरकड किल्ले आपाप आतात.

(Sabhāsad P.38).

154. जो नर गड आहेत तोवर पेटीन आपले हाती ते गड घेणे ते देऊन सला करावा हे उचित. (Sabhāsad- P.39).

155. SCVS. III, 37, Rajwāḍa VIII, 14.

156. Sabhāsad - P.41.

157. Shivaji and His Times, P.122.

158. Sarkar J.N. - Jai Singh and Shivaji-J.I.H. Vol.XLII, Part I. P.256.

159. Ibid. P.257.

160. Kulkarni A.R.
PUJ ~~Jup~~ (Humanities Section) No.31, P.2.

161. Sarkar J & Raghubirsingh -
Shivaji's visit to Aurangzib at Agra, Pp.37-38.

162. SCP (JS), P.31.

163. Ibid, P.31.

164. Ibid., P.32.

165. MSY - Pp.9-11.

166. MM - Pp.81-82.

167. SCP (JS), P.32.

168. MSY - P.9.

169. Bendre V.S., Chhatrapati Sambhaji, P.198.

170. SCP (JS) P.32.

171. Bendre V.S., Op.Cit. P.289.

172. Māsir - P.148.

173. The reason for shifting the capital is discussed in Chapter VII.

174. SCP (JS), P.32.

175. MM, P.84.

176. Ibid., P.84.

177. In September 1683, Aurangzeb sent Muazzam on the Konkan expedition. After descending the Rāmghat, the Mughals tried to push the Marathas. But in the beginning of 1684, the position of the Mughal army became miserable. It suffered shortage of food owing to draught. Aurangzeb managed to send grain through Surat by sea. But garrison stationed at Maratha forts raided the boats of grain. (MSY. P.14). Here we find that the second defence line (Fig. 20) of Shivaji proved useful.

178. MMS (FA), P.19.

179. MM., P.84.

180. SCP (JS), P.33. Ishwardās Nagar also says that Shahabuddin did not succed in his Kalyān expedition MMS (FA), P.33.

181. MMS (KS) - P.69.

182. Ibid., P.33.

183. SCP (JS), P.32.

184. Ibid., P.32.

185. Ibid., P.32.

186. Ibid., P.32.

187. MMS (FA), P.40.

188. Ibid. PP.32-34.

189. Ibid. P.33.

190. Ibid. P.33.

191. Ibid. P.33.

192. MMS (KS), P.70.

193. Ibid., P.70.

194. Rajwāde XVII, 20.

195. पोरतीच्या जमावे स्वारी शिकारी करून जे जे गड गनिमाने घेतले ते फिरावून हस्तगत करणे, गनिमांची ठाणी जागा जागा जे असतील ते कुल मारून काढणे, (Rājwade XVII, 20).

196. Rājwāde, XV, 3.

197. BISMQ Vol. VII, 3.

198. Rājwāde XVI, 27.

199. MSY - P.23.

200. Rājarām Ćharitam - II, 25-29.

201. MSY - P.24.

202. SCS VI, P.188.

203. SCP (JS), P.38.

204. MSY, Pp.39-40.

205. MMS, P.143.

206. SCP (G~~B~~PS), P.67.

207. MA P.74, MSY - P.43.

208. Chhatrapati Sambhaji P.664.

209. Sarkar J.N. - History of Aurangzib, Vol. V, P.23.

210. Rājārām Ćharitam, 1. 43-46.

211. History of Aurangzib. Vol. V, P.63.

212. Rājārāmcharitam, 2.1. - We know that Aurangzeb shifted his camp to Galgalā.

213. MA . Pp. 43- 46.

214. SCP (JS), P.35.

215. SCP (JS), 35-36.

216. MM, Pp.110-117.

217. Ibid., P.117, 119.

218. Ibid., P.126, SCP (JS), P.38.

219. MSY - Pp. 31-36.

220. SCP (JS) P.39.

221. MM. P.132; history of Aurangzib, V, P.106.

222. SCP (GPS) P.67.

223. Masir, P.254.

224. MSY - P.48.

225. MSY - P.52.

226. Taluka Sangola, District Sholapur.

227. Pāvangad - the fort stands on the Panhāḷā spur about 1 km east of the fort of Panhāḷā.

228. SCP (GPS), P.67.

229. Ibid., P.67.

230. Ibid., P.68.

231. Ibid., P.68.

232. Ibid., P.68.

233. Ibid., P.69. But the fort was again recaptured bythe Mughals by means of bribery.

234. Peshwa Daftar, 31.30.

235. Ibid., 31, 90.

236. SCP (GPS), P.68. Fort of Wākinkheḍā- (Gulburga dist.)

237. Quoted in 'Tārābāi and Her Times'- P.91 fn.

238. Storia, III, 505.

239. SCP (JS), P.36.

240. RE., P.39.

` गडकोट हेच राज्य, गडकोट म्हणजे राज्याचे मूळ, गडकोट म्हणजे खजिना, गडकोट म्हणजे सैन्याचे बळ, गडकोट म्हणजे राज्यलक्ष्मी, गडकोट म्हणजे आपली वसतिस्थळे, गडकोट म्हणजे सुखनिद्रागार, किंबहुना गडकोट म्हणजे आपले प्राण संरक्षण.`

AP. P.62.

The Sieges and their results

Expedition	Year	Fort	Type of fort	Length of siege	Way of assault	Results	Remarks
1	2	3	4	5	6	7	8
Siddi Johar	1660	Panhāḷā	Hill fort	Six months	Blockade.Siddi Johar used the guns of great calibre	Fort captured	Shivaji fled from Panhāḷā to Visālgad.
Shaista Khan	1660	Chākaṇ	Ground fort	Two months	Sap and mine method-used siege towers and the guns of great calibre	Fort captured	-
Jai Singh and Diler Khan	1665	Purandar Vajragad	Hill forts	Two months	Blockade used siege towers and the guns of great calibre	Fort captured	-
Aurangzeb's campaign							
Shahābuddin	1682	Rāmsej	Hill fort	Five months	Sap and mine method.Constructed huge towers	Siege withdrawn	Fort taken by the Mughals in 1686 by means of bribery.
Mātabar Khān	1689	Trimbak	"	-	-	Fort captured by bribing the Killedar for 80,000Rs.	-

1	2	3	4	5	6	7	8
Mātabar Khan	1689	Māhuli	Hill fort	-	-	Killedar accepted 'Mansab' and surrendered the fort.	
Zulfikar Khan	"	Rāyagaḍ	"	Eight months	Blockade constructed siege towers etc.	Fortcaptured	By this time Rajaram fled to Jinji
Aurangzeb	1700	Sātārā	"	One and half month	Sap and mine method. Constructed huge towers.	Fort taken by the Mughals by negotiations	-
Aurangzeb	1700	Paraḷi	Hill fort	One and quarter month	Scaling ladders,etc.	Fort taken by negotiation	-
Kāmabaksh and Tarbiyatkhān	1700-1701	Panhāḷā	Hill fort	Eight-months	Sap and mine method, etc.	Fort taken by bribing the Killedar for 55 thousand Rs.	-
Aurangzeb	1702	Viśāḷgaḍ	Hill fort	Six months	Sap and mine method, etc.	Fort taken by bribing Parashuram pant for 2 lakh Rs.	-
Aurangzeb	1702-1703	Sinhgad	Hill fort	Three & half months	-	Fort taken by bribing the killedar	-

1	2	3	4	5	6	7	8
Aurangzeb	1702-1704	Rājgad	Hill fort	Two and half months	Constructed huge, towers, etc.	Fort taken by negotiations	-
Aurangzeb	1704	Toraṇā	Hill fort	Half month	Scaling ladder	Fort captured	-

APPENDIX B

The Sieges and their results

Expedition	Year	Fort	Type of fort	Length of siege	Way of assault	Results	Remakrs
Tānāji Mālsure	1670	Sinhgad	Hill fort	Less than one weak	Scaling ladder	Fort captured	Tānāji Mālsure was killed
Marepant	1670	Trimbak Salher	"	"	-	"	
The Marathas	1670	Rohida Mahuli	"	"	-	"	
Shivaji	1670	Ahivant, Ravalā- Javalā Mārkandā Anchalgiri Lohgad	"	"	- Scaling ladder	" "	
Kondaji Forjand	1673	Panhālā	"	"	Scaling.ladder as with as bribery.	"	
Shivaji	1675	Phondā	"	One month	Sap and mine method	"	
Shivaji	1677	Vellore	Ground	One year & two months	Occupied two neighbouring hill-rocks (Sajara and Gajara) mounted batteries Blockade	"	Fort captu by Narhari Rudra in t absence of Shivaji

1	2	3	4	5	6	7	8
The Marathas	1704	Lohagad	Hill	Less than one week	~~One~~ Scaling ladder	"	-
The Marathas	1705	Sinhgad	"	"	"	"	The fort was captured in the month of July when there was abudant rain.

Chapter VII

Fort Capitals of Shivaji

Rājgad

During the Royal period of Maratha history, forts which were strategically more important were used as centres of intense political activities. Shivaji selected the hill fort Rājgaḍ by about 1657 as his capital and thereafter shifted his seat to the Rāyagaḍ fort by about 1670 and it continued to be the capital of the Marathas till it was captured by the Mughals in 1689 after the merciless execution of Sambhaji. However, the Maratha chiefs conducted their operations from impregnable strongholds like Panhāḷā and viśālgaḍ. During the period of the War of Independence Rajaram conducted the affairs of the Maratha state from Jinjī, which was far away from the Swaraj territory. The fort Jinjī was a major stronghold of Shivaji's third line of defence. Aurangzeb tried to subjugate the Maratha territory while Rajaram was besieged at Jinjī. But the great loyal commander Rāmachandrapant Amātya, who was designated as Hukamatpanah, conducted the military operations with the help of Maratha commanders Santājī Ghorpade, Dhanājī Jādhav, etc. and protected the 'Swarāj' in the teeth of the Mughal opposition. Rajaram could escape from the siege of Jinjī and return to Maharashtra, but he could not withstand the hardships of the journey and died immediately. However, Tārābāī, his wife, summoned courage, assumed the reins of control and gave a herioc resistance to Aurangzeb from Viśālgad fort till his death in 1707. The life-long struggle of Aurangzeb thus ended in a failure because of the Maratha patriots and their leaders like Tārābāī. It was because of a good net-work of forts that the Marathas could survive its utter devastation. In short, it may be said that Shivaji's efforts to found and expand the Maratha power was mainly due to the assistance provided to him by forts like Rājgaḍ and Rāyagaḍ and his successors could protect and maintain the Maratha territory intact only because they could make use of the strongholds like Jinjī, Panhāḷā and Viśālgad as centres of their activities during the period of crisis.

Shivaji selected the hill forts of Rājgaḍ and Rāyagaḍ as his capitals when the importance of hill forts in general was considerably reduced after the advent of the Muslims in the Deccan who believed in land and marine forts. It is, therefore, interesting to know why Shivaji~~'s~~ selected these centres and the part did they play in moulding the history of the Marathas.

Purandar, the first Centre

By 1643, Shivaji had in his possession the important forts like Purandar, Chākaṇ, Sinhgad, Toraṇā and Rājgaḍ. From his earlier activities, it seems that Purandar was selected by him as his political centre. Of these five forts in the Poona district, Rājgad was selected finally as the capital.

Purandar was treated as an important fort since the days of the Bahāmanis. This fort stands on a site of exceptional natural defences. It is 1363ms. above the sea level and 732 ms above the Poona plain. During the middle ages this fort afforded good protection to the Poona province. During the age of the Nizamshahi, it became very important as it was located on the border of the Ādilshāhī and Nizāmshāhī territories. In the 16th century the fort was strengthened by constructing fortifications of solid masonry. These fortifications, strongly defended all round by precipitious cliff, are of powerful design and construction in themselves.[1] Mr. H. Goetz observes, 'In Purandar the fortification system was likewise extended over the whole mountain. The very high and difficult cliffs on the North-West, west and South-West sides could easily be controlled by a line of separate watch towers, with attached small guard rooms, on projecting positions.'[2]

In the year 1634, the kingdom of Ahmadnagar was annexed and its territory was divided into the Mughal and Ādilshāhī powers. In this dismemberment of the kingdom of Ahmadnagar, the Mughals acquired important forts like Daulatābād, Bidar, Dhārūr, Udgīr and Ahmadnagar.[3] The Ādilshoha acquired the forts like Parendā, and the Konkan territory.[4] Thus the bounderies of Poona and Ahmadangar districts formed the border of the Mughal and Adilshāhī territories. The Purandar fort acquired more political significance as it is situated on this strategic line.

In 1636, Shahaji defected the Nizāmshāhī and joined the Ādilshāhī, and secured a Jāgir which included the important forts like Sinhgad and Purandar. However, according to the political usage of the mediaeval period the Jāgirdar had no control over the forts though they were in the jurisdiction of their Jagīr.

It seems that Shivaji was aiming at bringing all parts of Shahaji's western jagir under his own control, so as to form a compact state ruled by one authority.[5] Accordingly, he acquired the forts Koṇḍāṇā and Chākaṇ. But Shivaji's activities were suddenly checked when his father was arrested by the officers at Bijapur in 1648. During this period the headquarters of Shivaji were at Purandar. The Government of Bijapur had planned to capture Koṇḍāṇā and establish its sway over the Poona region. Fathkhan was, therefore, commissioned for this task.

Parmānand gives an account of the battle fought between Fatehkhān and Shivaji in the Śivabhārata.[6] From it we learn that Shivaji defeated Fatehkhan very astonishingly while remain~~s~~ing himself at the Purandar fort. The importance of this fort was well recognised by the Ādilshāhi commander who admitted that the possession of Purandar and Sinhgad forts alone had enabled Shivaji to remain stubborn.[7] It was, therefore, difficult to humble down Shivaji.

Shivaji's choice of Capital

Although the fort Purandar was well associated with the earlier activities of Shivaji, it was not considered by him for conversion into a permanent capital. ~~I noted~~ Instead the insignificant hill fort Rājgad known at that time as Murumdeo was selected by Shivaji for establishing his capital. It is interesting to study why Shivaji selected the fort Rājgad as a capital when he had in his possession the impregnable forts like Purandar, Koṇḍāṇā and Toraṇā.

The Purandar fort was situated on the border lines of the Ādilshāhī and the Mughals. Its strategic importance to Shivaji, was therefore, beyond dispute. The Ādilshāhi rulers had always kept a vizilant watch on the forts of

Purandar and Sinhgaḍ. Shahājī was released, as we know, when Shivaji conceded their demond to surrender the Sinhgaḍ fort, which was best suited for turning it into a seat of capital. But Shivaji had, perhaps, to give up this idea as it was lest to the Ādilshāhī for sometime.

He retained the Purandar fort with him, but though well suited for creating a seat of capital, Shivaji did not take steps in that direction. Because he could visualise the possibility of an alliance between the Ādilshāh and Aurangzeb causing alarm to ~~Shivaji~~ him had anticipated a Mughal attack on his territory and in that event Purandar would have become most unsafe place as capital. We know that Jai Singh, the brave commander of Aurangzeb, selected a place between Sāsavaḍ and Purandar for his encampment and besieged the fort Purandar in 1665.

The fort Chākaṇ which was acquired by Shivaji very early was merely a ground fort of small size, Moreever it was located on the border of the Mughal territory and hence it might have been considered useless for establishing the seat of Government. We know that Shaistekhan in his Deccan campaign had besieged this fort for nearly 55 days and destroyed it to a considerable extent.

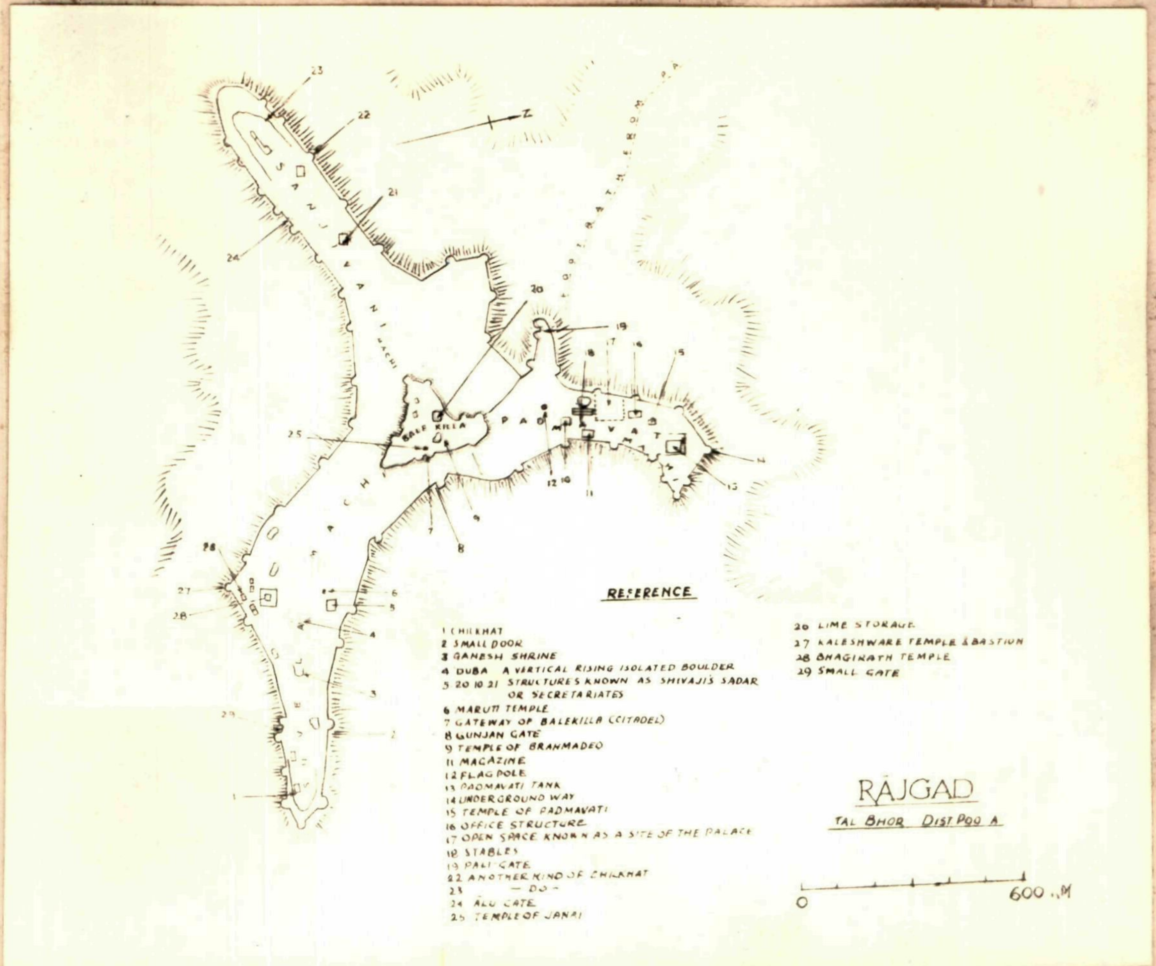
The Toraṇā fort (Prachaṇḍgaḍ) was situated at a distance of few kilometres from Poona. But the fort was uneven in size (Fig. 26 b) and it could be besieged without ~~most~~ much difficulty.

Thus by process of elimination, Shivaji must have fixed his eyes on the Rājgad, which stood away from the boundaries of the Muslim powers and was highly impregnable.

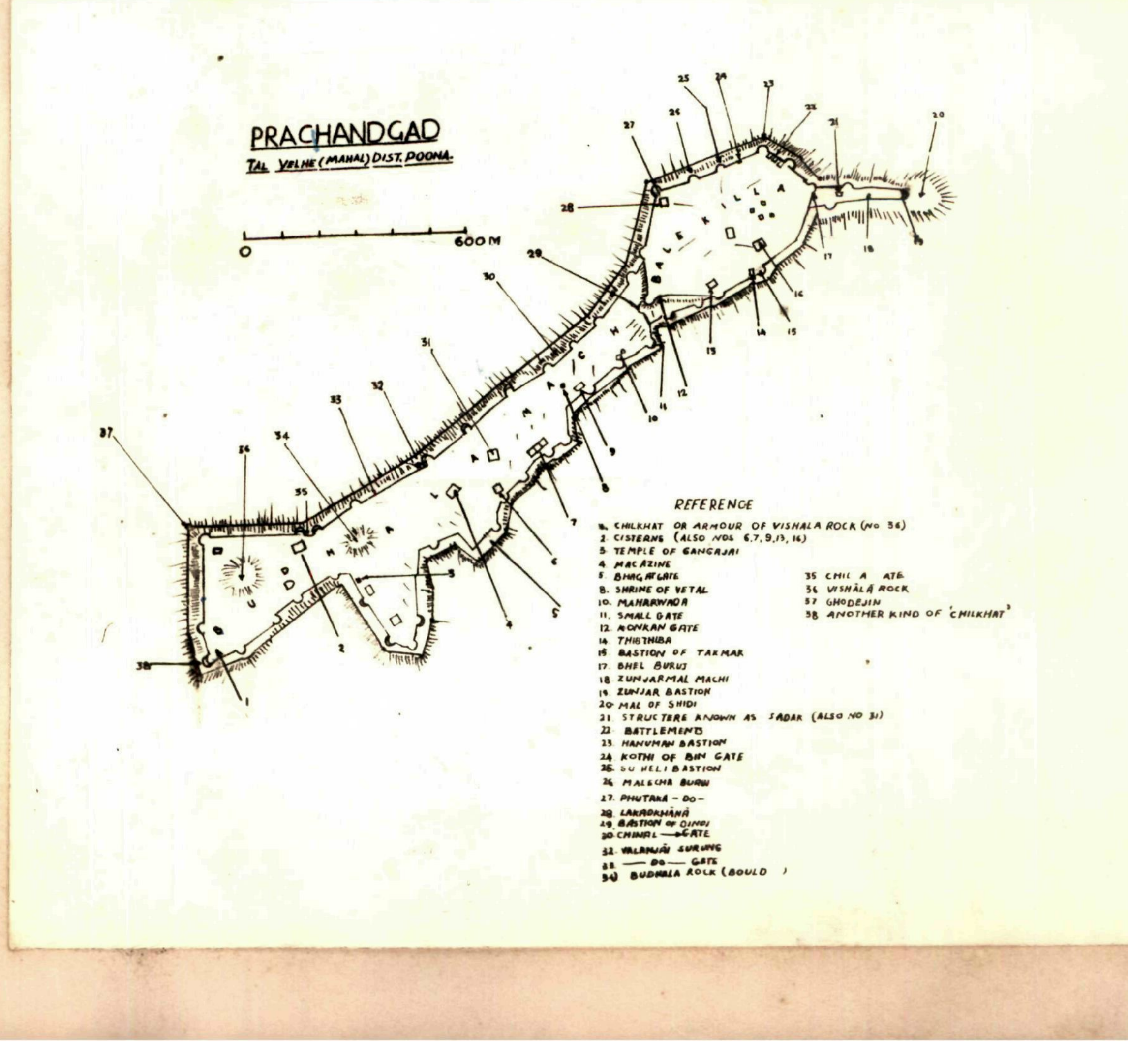
The fort Rājgaḍ was surrounded by the curtains of hillocks that could create several obstructions to enemies in conducting their military operations. Further the small rivulets like Kānadi and Gunjavaṇī flowing by the side of Rājgaḍ were responsible for checking the activities of enemies, particularly in the rains season. As extremely flooded in monsoon, these rivers obstructed the movements of enemies' troops. The fort Rājgaḍ had three extensive redoubts or 'Māchis' that could render spacious area for the construction of buildings and the citadel. Shivaji might have observed all these facilities and selected the fort Rājgaḍ as his fort capital.

In the 'Shivabhārat', while describing the importance of forts, Sonapant Dabīr advises Shivaji that His Majesty should occupy an extremely inaccessable place and endeavour to conquer the whole world.[8] Further he says, 'if the king

Fig. 26


SANJIVANI MACHI
BALE KILLA
PADMAVATI
MACHI
REFERENCE
1 CHILKHAT
2 SMALL DOOR
3 GANESH SHRINE
4 DUBA A VERTICAL RISING ISOLATED BOULDER
5 20 10 21 STRUCTURES KNOWN AS SHIVAJI'S SADAR OR SECRETARIATES
6 MARUTI TEMPLE
7 GATEWAY OF BALEKILLA (CITADEL)
8 GUNJAN GATE
9 TEMPLE OF BRAHMADEO
11 MAGAZINE
12 FLAG POLE
13 PADMAVATI TANK
14 UNDERGROUND WAY
15 TEMPLE OF PADMAVATI
16 OFFICE STRUCTURE
17 OPEN SPACE KNOWN AS A SITE OF THE PALACE
18 STABLES
19 PALI GATE
22 ANOTHER KIND OF CHILKHAT
23 — DO —
24 ALU GATE
25 TEMPLE OF JANAI
26 LIME STORAGE
27 KALESHWARE TEMPLE & BASTION
28 BHAGIRATH TEMPLE
29 SMALL GATE
RĀJGAD
TAL BHOR DIST POO A
0
600 M

a


PRACHANDGAD
TAL VELHE (MAHAL) DIST. POONA.
0
600 M
BALEKILLA
MACHI
REFERENCE
1. CHILKHAT OR ARMOUR OF VISHALA ROCK (NO 36)
2. CISTERNS (ALSO NOS 6, 7, 9, 13, 16)
3. TEMPLE OF GANGAJAI
4. MAGAZINE
5. BHAGAT GATE
8. SHRINE OF VETAL
10. MAHARWADA
11. SMALL GATE
12. KONKAN GATE
14. THIBTHIBA
15. BASTION OF TAKMAK
17. BHEL BURUJ
18. ZUNJARMAL MACHI
19. ZUNJAR BASTION
20. MAL OF SHIDI
21. STRUCTERE KNOWN AS SADAR (ALSO NO 31)
22. BATTLEMENTS
23. HANUMAN BASTION
24. KOTHI OF BIN GATE
25. SU HELI BASTION
26. MALECHA BURUJ
27. PHUTAKA - DO -
28. LAKADKHĀNĀ
29. BASTION OF DINDI
30. CHINAL → GATE
32. VALANJĀI SURUNG
33. — DO — GATE
34. BUDHALA ROCK (BOULD)
35 CHIL A ATE
36 VISHĀLĀ ROCK
37 GHODEJIN
38 ANOTHER KIND OF 'CHILKHAT'

b

is stubborn, the fort is inaccessible; if fort is impregnable, the king is strong. But if both are fragile, the enemy can remain aggressive.'[9]

Rājgad : the first capital

Early history

The fort Rājgaḍ was formerly known as Murumdeo or Murāmbdeo.[10] We learn that the fort Murumdeo was included in the list of the forts captured by Ahmad Bahirī, the founder of the Nizāmshāhī dynasty of Ahmednagar by about 1490.[11] In the age of Malik Amber, the fort was handed over to Haibat-khan, the Havaldar of the Ādilshāhī and thus it passed to Bijapur.[12] From contemporary records it appears that the fort was retained under the supervision of a Hindu Vatondār of Guṇjaṇ Māvaḷ.

We do not know exactly in which year Shivaji captured the fort Murumdeo from the Ādilshāhī. According to one document the fort was in the possession of Shivaji as back as 1642-43 and he renamed it as Rājgad.[13] According to the Jedhe Karīnā, Shivaji acquired the forts Rājgad and Torṇā and started construction prior to the invasion of Purandar by Fatehkhān in 1648.[14] It may therefore be presumed that the fort was acquired by Shivaji earlier than 1648. Sabhāsad tells us that Shivaji converted the hill

Murabād into a fort and renamed it as Rājgaḍ.[15] It seems that after the death of Dadoji Kondadeo in 1647, Rājgaḍ became the centre of political activities of Shivaji.

Construction

We learn from the Jedhe Karīnā that Shivaji had started construction in 1643[16] at Rājgaḍ fort. But it seems from early record that the hill was already fortified to some extent prior to its acquisition by Shivaji.[17] Shivaji, after realising the importance of this fort, started and renovating it and making ~~of~~ it suitable for intense political activty.

Ascent

While providing the approaches to the fort, great care was taken to make the ascents as difficult as possible. Here we find that the maximum use of the physiognomy of the hill was made to provide difficult ascents.

The fort (18°-15' N and 73°-41' E) comprises three Māchīs of nearly equal heights. The Suvelā Māchī lying to the South-East is at a height of 1183ms, whereas the Sanjīvanī to the South-West is 1134ms above the sea level. The third Māchī Padmāvatī is 1192ms above the sea level and can be approached by two gateways viz. Gunjavane and Pālī. The citadel or Bālekillā is at a height of 139ms from the sea-level and could be approached by one route, which is too difficult. These three Māchīs protect the citadel. The way to the citadel lies through the Padmāvatī Māchī which acted as the watch post of the citadel.

The Padmāvatī Māchī can be approached by two routes, one through the Pālī gate and second by Gunjavane gate. The approach to the Pālī gate is available from the village Velhe situated 56 Kms. away from Poona. From here one has to go to Gābe and after crossing the rivulet Kānadī and gorge Khariv he has to arrive at Vājegao, a small village from where the actual ascent begins. This approach to the Māchī has been well protected by nature as on one side there is the river Kānadī and gorge Khāriv. The sides of the gorge always proved useful as the battlements of fort. ~~walls~~. The river, particularly in the rainy season, was another obstruction in the route. The ascent is troublesome because of its more steep nature than the usual winding method. This route is considerably wide to take even horses and elephants to the fort and must have been much in use in the mediaeval period.[18] By this route one enters Rājgaḍ by the Pālī or Western gate. Here again we find that the artificial gorge caused by the construction of flights of steps, provides the battlements to both sides from where huge stones can easily be rolled down.

The second route to the Padmāvatī māchi is from Mārgāsani - Gunjavaṇe side. If this route is followed, one enters into the premises of Rājgaḍ through the Gunjanvaṇe gate. The Village Gunjavaṇe is situated at the foot of the Rājgaḍ fort and it can be approached on foot from Mārgāsanī, a village on the Nasarāpur-Velhe road. While walking one has to cross two rivulets, viz., Kānadi and Gunjavaṇī. Further the actual ascent is more difficult as the precipice to the hill top provides too narrow steps at certain points. One can easily conjencture how the route must have been difficult for conducting the military operations during the mediaeval period.

The third route is available from the village Vale. For this route, one has to cross the present Bhāṭghar lake for some distance by means of boat and to drop himself at the village Vaḷe from where two routes, viz. One to the Suveḷā Māchī through Kāleshwarī or Dindī gate and another to the Sanjīvanī Māchī through Aḷu gate are available. The ascent by these ways is most tedious owing to the precipitious nature of the hill. Thus it is clear that the Rājgaḍ was extremely inaccessable fort. The fort Toraṇā, situated 6.50 Kms away which was under Shivaji and could have rendered valuable help to the capital in case it was besieged by the enemy.[19] James Douglas, therefore, rightly observes, 'Rajghur (Rājgaḍ) and Torṇā are both hills of a breakneck character and well suited for the abode of the youthful chief of a turbulent and unsettled country.'[20]

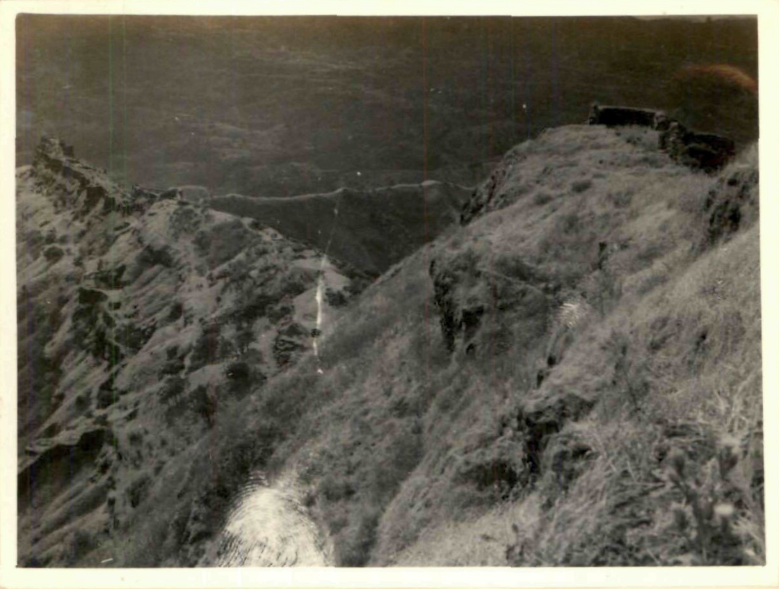
About the inaccessibilit~~ing~~y of the Rājgaḍ fort Sāqi Must'adkhān, the author of Masīr-i-Ālamgirī, writes, 'a hill second only to the fort of the towered sky. Its circuit is twelve kos. Imagination cannot estimate its height. Its thorny jungles and specture haunted chasms can be traversed only by the wind. Nothing can descend on it except rain.'[21]

Māchīs

The Māchīs or redoubts of Rājgaḍ fort were treated as independent forts. Sabhasad says, 'the fort Rājgaḍ is a group of four Māchīs'[22] Sāqi Musta'd Khan also treats the māchīs of Rājgaḍ as three different forts. He says,'Shivā after gaining possession (of Rajgarh) made three terraces on three sides around it on a lower level (machi) and there built three strong forts namely, Suveḷā and Padmāvatī situate towards Konkaṇ uplands and Sanjīvanī on the side of Konkaṇ lowlands.'[23]

A glance at plan (~~Pl~~ Fig.26 a) reveals that the Suveḷā and Sanjīvanī Māchīs are separated from the Padmāvati māchī by the curtain walls constructed in between them. The curtain wall towards south-west distinguishes the Padmāvatī and

Pl. VIII

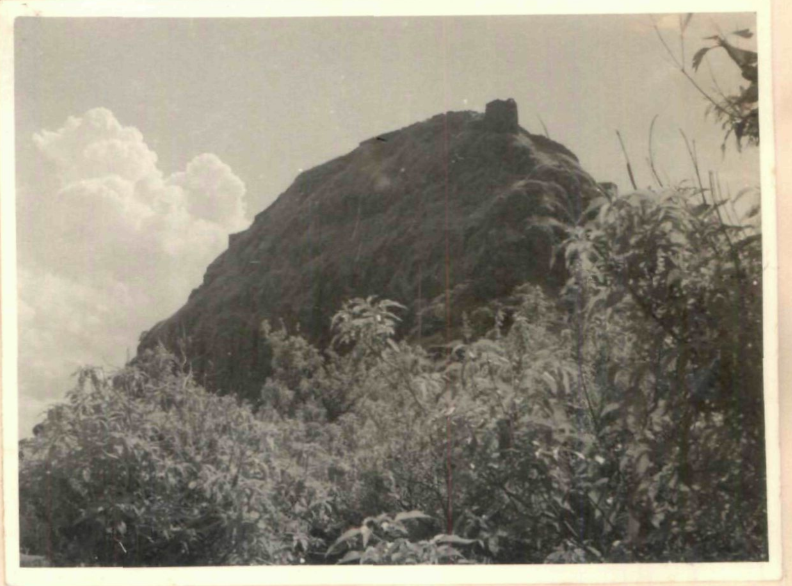


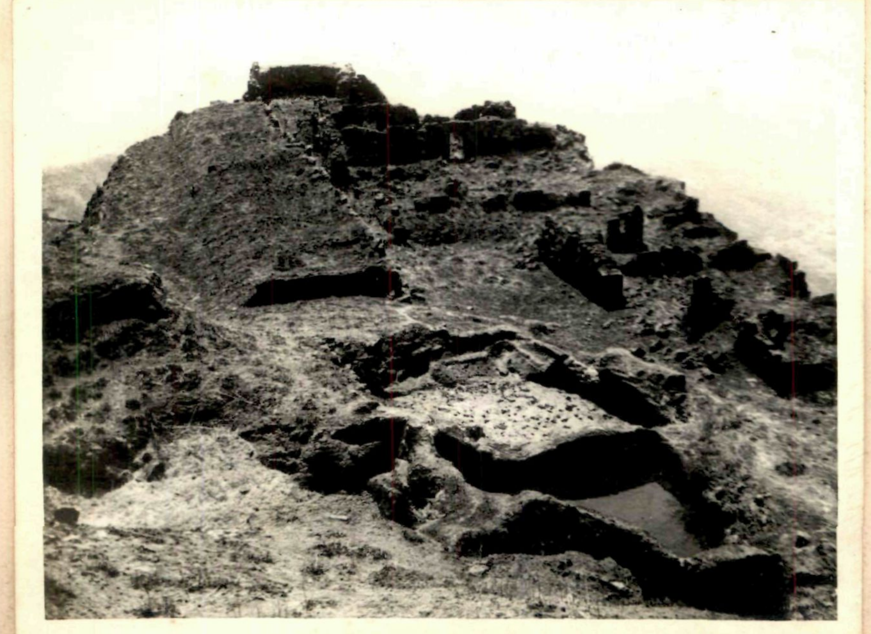
a.

Sanjivani Māchi
Rājgad

b

Bale Killa,
Rājgad





c

Remains on
Bale Killa,
Rājgad

Sanjīvanī Machis whereas the partition wall towards the South-east divides the Suveḷā and Padmāvati Māchīs. These curtain walls were provided with gates to facilitate the movements of 'Shibandi' within the fort. But it seems that no curtain wall was constructed to distinguish Suveḷā and Sanjīvanī Māchis. The reason for the separation of the Padmāvati Māchī from other two lies in the fact that the residence of king, granary, stable and other military buildings existed in the said māchī. In case of other two māchīs, no partition wall was provided in order to facilitate the movements of garrison within the fort. Further, both the Māchīs were of equal height and strengthened by providing 'chilkhaṭs' or additional fortifications at their sharp cornered portions towards South-West and East sides (Fig 29 b)

Suvelā Māchī

Shivaji undertook the construction of the eastern terrace in the first place and named it as Suveḷā,[24] which signifies the importance of the East, the direction of the rising sun.[25] It comprises of three tiers of terrace tapering at the eastern end. On the first tier, there is a natural mound, locally known as Dubā, covered by thick bushes, which is situated at ~~an~~ one half kms from the citadel. At a distance of few paces from Dubā, the remains of some residential quarters are tracable. It is said that the quarters of veteran Maratha chiefs like Tanaji Malusure, Yesājī Kank, Silimbkar, etc. were located at this place. From the remnants it seems that each quarter was provided with independent water supply. Behind the Dubā, the remains of one spacious structure is tracable towards the North. It is said that it was the Sadar or secretariat of Shivaji (Fig.26a). Besides the residential quarters a group of temples of Rāmeshvar, Gaṇesh, Kāleshvar, Bhāgīrathī, Mārutī is found here. All these temples are mostly in dilapidated condition. It is difficult to find out whether these temples were constructed in the period of Shivaji. Near the group of temples three water tanks are located towards the South. Forts were busy centres, and many people were residing on them. We find so many temples on the fort perhaps to meet the spiritual requirements of the people residing on the fort.

The second and the third tiers of the terrace or Māchī are strengthened with fortifications at the edges of their summits. The second tier is strengthened by providing huge bastion at its eastern end. A flight of large steps is provided to facilitate the movements of garrison within the fort (Fig.26a). The third tier is of lower height and strengthened by huge bastion at its end. The outer fortification wall of the second and third tiers is provided with battlements for musketry. On the third tier we find interesting structural feature called Chilkhat or armour. According to this system the outer bastions are protected from within by furnishing the subsidiary structures (armours) erected at short distance from the base and they are about 1.5 m. in height. They afford additional protection and cover for the defenders. Out of seventeen bastions of Suveḷā Māchī, seven are provided with such armours. These additional structures not only afford protection to the outer fortification but can be served as retaining walls, in case there is any breach in the bastions. But the most interesting type of the armour, rarely available in other forts, used here is the underground tunnel, locally known as Nāḷ. The distance between the outer wall and this tunnel is about 0.60 m.. The depth of the recess is varying and in some places it is about 6 ms. The tunnel has some outlets to reach to the outer wall. By this underground passage the defenders can easily reach to the lower tier of loopholes provided at the outer wall and can charge the musket fires. The space between the tunnel and the outer wall facilitates movements of garrison within the fort. Thus, the Suveḷā Māchī, the first sub-fort of the Rājgaḍ, was constructed by Shivaji with a view to affording maximum protection to the main fort.

Sanjīvanī Māchī

Next to the Suveḷā, the Sanjīvanī Māchī (Pl. VIII a) was fortified and converted into a strong sub-fort. It also consists of three tier terrace and has, the length of 2.50 kms.

Like the Suveḷā, the Sanjīvanī Māchī has been also well fortified. Each tier of this Māchī is strengthened by the bastions at its western end. We find the remains of residential quarters and some other structures. The existing water tanks enable us to guess that the water supply was abundant throughout the year.

The provision of additional structures or armours is also found here. Nine out of nineteen bastions have been provided with armours. Further we find in the last tier of this Māchī that the underground passage (Nāḷ) is constructed to allow the defenders to reach the lower row of loopholes of the outer fortification.

Padmāvatī Māchī

Of the three Māchīs, Padmāvatī Māchī enjoyed prominent position during this period. It was not only a military centre but also the residential quarter of the king as we find plinth remains of a big palace. It took four long years for its construction and the final shape was given by 1663.[26] Like other two, this Māchī is also well fortified and provided with battlements. One could reach the Māchī from the Gunjavaṇe side, situated to the east and the Pālī side situated to the South.

The Gunjavaṇe gateway is the series of three successive gates constructed at considerable distances from each other. The architecture of the first gate is very simple having no decorations. The remains of one wooden door jamb with a few iron hings show that the gate was having wooden doors of above 4.50 ms. in height and at least 1.35 ms. in breadth. A flight of dilapidated masonry steps goes up the terrace of the gate. The gate is strengthened by bastions and ramparts on the right side. On the left side there is another wall built on the rock and of 10.60 ms. in height. Both the walls are built of massive stone boulders and the distance between them is about 1.80ms. We find that the first wall is pierced with loopholes at irregular intervals for musketry.

The second gate stands about 17 ms. from the first one. The gate is having the peculiar arch. A crude sculpture is carved here on the lintel. The figure shows the earlier form of Gajalaxmī i.e. a lotus in the central place,' flanked by two elephants holding pitchers in their trunks[27] (Fig.27a). The peculiar type of sculpture, absence of merlons and embrasures in respect of this second gate show that probably this gate was constructed before the period of the Bahāmanīs. Inside the gate the recess about 1.30 ms. in height is provided as a guard room.

After passing the second gate some rock-cut and dilapidated masonry steps lead to the third gate which is now in ruinous condition. After crossing it one steps into the Padmāvatī Māchī.

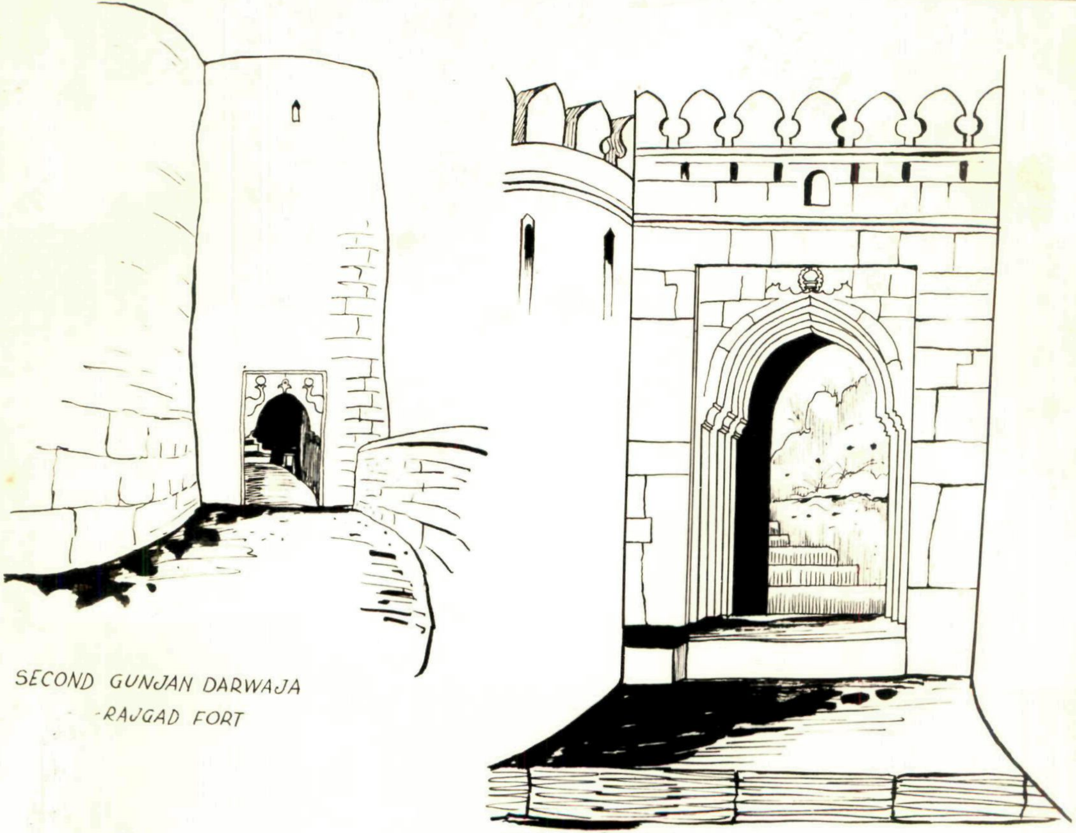
Pālī gate -

It is the South-eastern access of Padmāvatī Māchī. The first gate is of considerable height and breadth that can facilitate the entrance of the elephants with their 'howdāhs' (Fig.27a). The gate is flanked by two huge bastions constructed of stone boulders. Here we find that a considerable portion of rock is excavated in front of the gate to construct a flight of steps. These two walls are so formed that they can be used as the barbicans of the gateway. After passing a distance of nearly one furlong the second gate checks further access. This gate consists of a pointed arch and is flanked by the bastions. Here the bastions are pierced at intervals for loopholes (Fig.27a). The striking feature of this gate is that the battlements above the gate and bastions are provided with round embrasure flanked by the merlons of floral design. These round embrasures were certainly useful for gunnery and loopholes pierced below were servicable for musketry. Above the gateway a nitch is provided to the parapet in the centre, probably for keeping a watch when the gate is closed (Fig. 27a). Just above the pointed arch a crude figure of crown is carved (Fig. 27a).

After crossing the second gate, the road turns immediately to the left side. The guard room on the right side is provided to check the entry through the gate whereas the second guard-room on the left side can keep a watch on the road leading to the fort (Fig. 27b). It seems that the maximum care was taken to protect the Padmāvatī Māchī, the important centre of the fort.

Remains - On the Padmāvatī Māchī we find the remains of a number of buildings. Except a few all of them are in a dilapidated condition. Shivāpurkar Deshpande Karinā gives an interesting account of the residential quarters of Shivaji, Moropant Pingale which were located on the Padmāvatī Māchī.[27A] The foundation plinths of the palace and a place for royal flag indicate the royal residence. The plinth divided into many compartments enables us to guess that the palace was provided with various 'Mahāls' like those on the Rāygaḍ. At the backside of the Palace the remains of the rectangular hall measuring about 21.30 ms. in length and 13 ms. in breadth can be identified as stable. The wooden

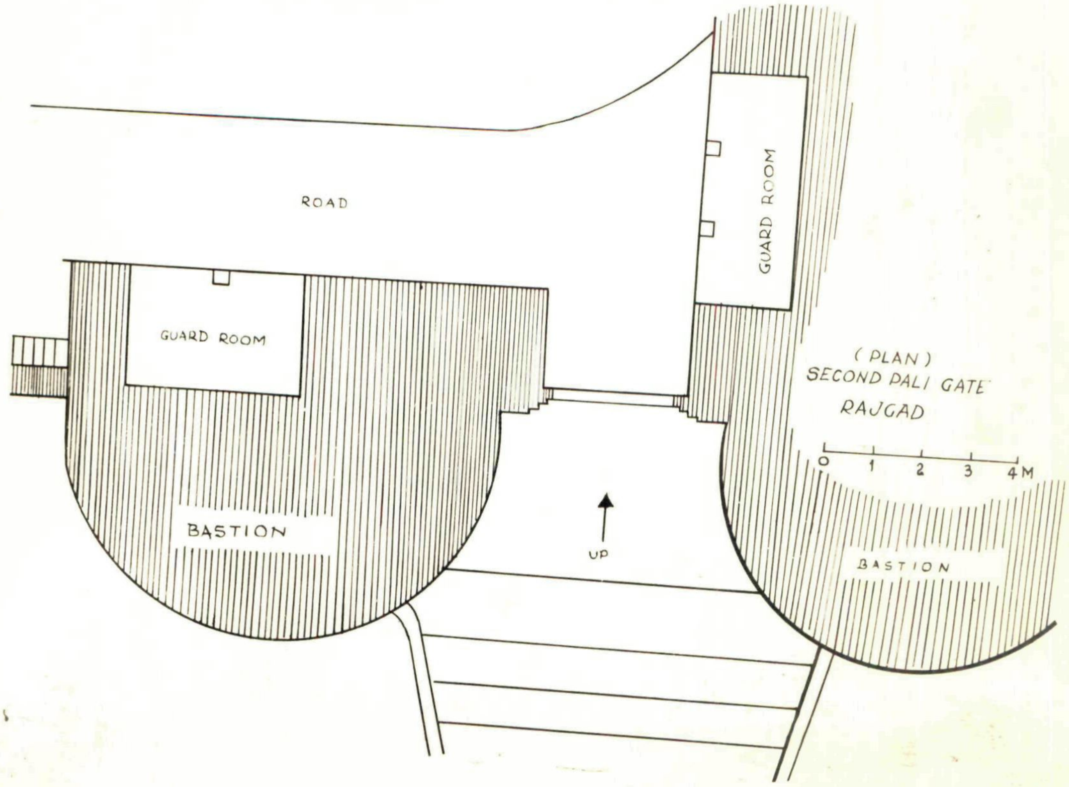
Fig. 27



SECOND GUNJAN DARWAJA
-RAJGAD FORT

SECOND PĀLI DARWAJA_ RAJGAD FORT

a


ROAD
GUARD ROOM
GUARD ROOM
(PLAN)
SECOND PALI GATE
RAJGAD
0 1 2 3 4M
BASTION
UP
BASTION

b

beams used in this structure are still visible. The back wall of the stable is provided with the holes for ventilation.

The remains of state office or Sadar are tracable on the Padmāvati mūchī. It is a stone building consisting of three compartments. In the front portion of the Sadar, there are four wooden cyprus pillars with inverted bell shaped capital. The pillars are now in bad state of preservation. In the central hall we find four stone bases on which wooden carved pillars might be rested as the holes in the stone bases provided for them. Now the whole structure is in a dilapidated condition. One another building towards the north is also in a ruined condition. It occupies the area of 9.45 m, in length and 3.65m, and seems to be the granary or 'Ambarkhānā' of the fort.

The remains of one building (no. 11 in Fig.26 ~~plan~~) located towards North-East, Seems to be the magazine building. Here we remember Amātya's advise that the powder magazine should not be near the house or near the compound of any house.

The temple of Padmāvatī, the four-handed goddess, is situated towards the North-West and at a distance of a few paces form the stone-building of Sadar. The present temple is reconstructed in the later period. To the south-east of this temple there is a temple of Shiva having a broken

'Lingam' in the altar and an image of 'Nandī' (bull) in front of it but outside the temple. This temple is also in a dilapidated condition.

Towards the North of the Padmāvatī temple, we find a tank provided with two massive walls at the east and west of it with an entrance gate in each. The inner portions of the walls are provided with arches and platform. Between the second Gunjavaṇe gate and the citadel a deep well filled with water is located.

From the above account, it may be concluded that the Padmāvatī Māchī was selected as the main centre because it rendered spacious plains for the construction of royal buildings, granary, etc. Further it assured better water supply than the other two Māchīs.

The Bāle Killā -

The Bālekillā or the citadel was the last place of resort, on the fort. The pathway leading to the citadel is too narrow and tedious. The hillock on which the citadel stands itself is preciptous and the flight of steps carved to go up is very steep and the deep valley on one side is breath-taking (Pl.VIIIb), Fig 29 b). The difficult ascent made the citadel impregnable.

The gate of the citadel is still in a good state of preservation. The central arch of the gate with two recessed blank arches is the pointed arch (Pl.IX a,c). The gate is flanked by massive octagonal bustions, both well battlemented (Pl.IX a,b). The door is how missing but the iron sockets and the nitches provided on both the sides for timber bar clearly show that the gate had two panel doors. The height of the gate is about 6.40ms. Like the gate of the citadel of the Rāygaḍ fort (Pl.XI b), this gate is also constructed with dressed stones and the surface of the flanking wall is decorated with rectangular panels in the Bahāmanī style (Pl.~~XI b~~ IX c).

The designs like lotus, Swastik,' etc. are carved in the panels above the gate (Pl.IX c).

Although the citadel stands on a preciptious hillock, a fort wall of 1.50 ms in height with bastions at intervals is built around it to secure further protection.

After crossing the gate one finds two temples on the citadel; One is of Jananī and other of Brahmarishī. The temple of Jananī having the 'lingam' is in a dilapidated condition but yet it is under worship. The other temple is a simple rectangular structure without any architectural designs. Both the temples seem to be constructed in the later period and they are dedicated to Lord Shiva, although

Aurangzeb himself was busy in acquiring forts with a view to crushing the Maratha power once for all. At such critical stage, Rajaram and his followers initiated the system of feudal decentralisation, and introduced the new system of conferring the 'Saranjāms'. The Deshmukhs of the regions adjacent to the forts were now engaged in driving out the besieging forces.

When the Rājgad was besieged by the Mughal forces in 1704, Santājīrāo Silimkar, the hereditary Deshmukh of Gunjan Māval, offered pitched battle with the Mughals when their forces were trying to breach the fortification of the Suvelā Māchī.[35] In his attempt to drive out the Mughal forces, Santājīrāo lost his life.[36] In recognition of his valuable services, his son Pratāprāo was made senāpancha hajārī with an annual remuneration of 1600 hons.[37] The widow of Santājīrāo, Godābai, was also granted a pension of 100 hons per year for her life time.[38]

Historical evidences

The major historical events during the period from 1647 to 1707 can be described as below -

When Afzalkhan entered into Shivaji's territory with a view to killing or capturing him, Shivaji was at Rājgad. Shivaji met Afzal at the foot of the Pratāpgad and killed him. It is believed that Shivaji returned to Rājgad the name Jananī of one of them denotes the Mother goddess.

Behind the Brahmarishī temple, we find an irregular row of structures on either side of the path (Pl.VIII c). It was perhaps the market place which reminds us of the spacious market at the Rāyagaḍ fort (Fig.30). Each row here consists of five to six shops and the path between the rows is of 4.60 ms.in width. Like the Rāyagaḍ, here also each shop contains two rooms, one for shop and other for store. But for want of evidence, it is very difficult to identify these structures as the market shops. The Bālekilla is the last place of resort. So there was least possibility to provide regular market on the Bālekilla. These structures might be the residential quarters for the garrison.[27] All these structures are now in a bad state of preservation (Pl.VIII c).

Almost all the buildings on the citadel are in a dilapidated state. We find the traces of one buildings of 10ms.in length and 3.35 ms.in breadth. Perhaps this was the Sadar or residence of the king.

Near the Brahmarishī temple, there is a rock-cut cistern divided into five compartments, which was perhaps the major source of water supply to the citadel. Besides this tank, two other ponds are located here. But they are dried up at present.

As almost all the structures on the citadel are in a dilapidated state, it is very difficult to identify them. But it seems that Shivaji was cautious to privide all the necessities to this last resort.

Administration

Being the capital of 'Swaraj', the fort Rājgaḍ was under the direct control of the Maratha kings. But for the administrative purposes, the portfolios of important departments were entrusted to four major officers viz. Havāldār, Sarnobat, Sabnīs and Korkhānīs. We find that even in the Nizamshāhī period, the Havāldār and the Deputy Havāldār were appointed to look after the fort.[28] From a contemporary document it appears that one Shahaji Mohite was the Havāldār of the Padmāvatī Māchī for sometime during the period of the Shivaji.[29] Besides the havāldār, a Sarnobat was also appointed for the Padmāvatī Māchī. From one document, we learn that Keśo Nārāyaṇ, a Sabnīs, committed some fraud during the period of absence of the havāldār and the Sarnobat.[30] From the same document it appears that the Sabnīs was allowed to look after the administration of fort in the absence of the havāldār and Sarnobat. According to one contemporary letter, one Sidojī Thopaṭe was the Sarnobat of the Padmāvatī Māchī and he was in charge of its Sardar.[31] The paucity of material prevents us from presenting a picture of the administrative staff engaged on the fort. But as the fort was a busy centre of activities, during this period several civil as well as military officials might have been appointed and they must be residing on the fort itself, So long as the fort enjoyed the status of capital. In appears from one document that the Brahmans were appointed to perform worship of deities on payment of annual allowances. One Trimbakdev Gosāvī was earning Rs.75/- as 'Varshāsana' or annual grant for performing religious rites.[32]

Besides the Havāldārs and the Sarnobats, the Deshmukh of the Gunjaṇ Māval, the region adjacent to the fort, was supposed to act as a special officer (Nāmjād) of the fort.[33] It seems that the troops attached to such special officers were roving bands on the fort and their main work was to drive away the besieging force of the enemy by offering pitched battles. This system was particularly introduced by Shivaji and continued by his successors. But we find one change that might have taken place in the time of Rajaram. The vatandār of the region adjacent to the fort was now engaged as Nāmjād or special officer of the fort. As a matter of fact, Amatya condemns this system in his treatise 'Ajñāpatra',[34] But it may be noted that after the death of Sambhaji, the country's fortune was at its lowest ebb. The civil and military system of Shivaji's time absolutely collapsed.

to pay respects to his mother after ~~the~~ Afzal's episode.

During his expedition in 1660, Shaista Khan tried to destroy the territory adjacent to the Rājgaḍ fort. At this critical juncture Shivaji was besieged in Panhāḷā by Siddī Johar. However, Shaista Khan, as there was no plan before him, had to drop the idea of capturing Rājgaḍ.

It is said that Shivaji spent the last three months of the year 1660 on the Rājgaḍ in planning his future programme. In October 1660, Shivaji was at Rājgaḍ as we learn from the Jedhe Śakāvalī that Sonājī Paṇḍit after taking leave of Shaista Khan went to Shivaji at Rājgaḍ.

In the year 1661 and 1662 Shivaji undertook several military operations against ~~the~~ Bijapur, the Mughals and the English factory at Rājāpūr.

Although he was busy with military operations and constant touring, it seems that Shivaji used to return frequently to his capital for administrative purposes. In August 1661, he appointed Narhari Anandrao as the Peshwa, Annājīpant as the Wāknīs.[39] Again in the month of April 1662, he appointed Moropant Pingle as the Peshwa, Nilopant as the Majumdār. Further in August 1662 he appointed Annājī Pant as Surnīs.[40]

In the year 1663, Shaista Khan occupied the residence of Shivaji at Poona known as Lāl Mahāl. It was from the Rājgad that Shivaji attacked Shaistakhan on the night of April 5, 1663, and wounded him.[41]

On 31st December 1663, Shivaji proceeded to Surat (probably from Rājgaḍ). After the death of his father Shahaji on 23rd January 1664, Shivaji returned to Rājgaḍ on 6th February 1664.[42]

During the campaign of JaiSingh Daūdkhān was sent by him for destroying the territory in the vicinity of the forts - Rājgaḍ, Sinhgaḍ, Rohidā, etc. After concluding peace with Jai Singh Shivaji returned to his capital Rājgaḍ. Here it may be noted that Rājgaḍ was one of the twelve forts retained by Shivaji in the treaty with Jai Singh.

We have seen that neither Shaista Khan nor Jai Singh tried to besiege the fort Rājgaḍ. Both of them selected the forts like Chākaṇ and Purandar for reducing finally because they were located on the border of the Mughal-Maratha territories. This fact clearly shows that Shivaji was centainly farsighted who preferred the fort of Rājgaḍ for his capital which was actually in the heart of his country.

When Jai Singh assured safety to Shivaji, he left Rājgaḍ for Agra on the 5th March 1666 in the company of his elder son Sambhaji, five high officials and a small detachment. Before leaving the capital, Shivaji made necessary arrangements for the administration of his kingdom during the period of his absence. He made Jijābāī, his mother, a regent and Moropant Peshwa, Nilo~~ji~~ Majumdār were asked to work under her orders.

After three months of confinement at Agra in 1666 Shivaji escaped from there and reached Rājgaḍ on the 20th November ~~August~~ 1666.[43]

We have seen earlier the major historical events which were closely associated with his capital Rājgaḍ. Further it may be noted that after his return from Agra, Shivaji undertook the project of recapturing all the forts ceded to the Mughals.

From contemporary records it appears that the fort of Rājgaḍ an~~d~~ remained as capital upto 1670. Probably after the birth of Rajaram in Feb. 1670, Shivaji might have shifted his capital to the Rāyagaḍ, for we learn that he invaded Mughal territory from Rāyagaḍ and laid siege to Junnar in the month of August 1670.[44] A brief review of the fate of Rājgaḍ after 1670 would be interesting.

It seems that even after shifting the capital to Rāyagaḍ, Shivaji never neglected Rājgaḍ. We learn that Shivaji had sanctioned an amount of 10000 'hons' in 1672 for construction and repairs of Rājgaḍ for one year.[45] During the period of Sambhaji, Rājgaḍ was the centre for supplying forces to the adjoining regions like Rohiḍkhore.[46] After the execution of Sambhaji, the fort was captured by the Mughals. But in May 1690, the fort was regained by Ramachandrapant Amātya.[47] At the time of Rajaram, Rājgaḍ was the main centre of political activities. After his return from Jinjī, Rajaram first arrived at Rājgaḍ and then he left for Koṇḍāṇā where he died in 1700. In the age of Shivaji II, Aurangzeb undertook the elaborate project of recapturing the Maratha forts. According to one account the Emperor himself marched from Poona in November 1703 and besieged Rājgaḍ.[48] We get very detailed account of this siege in Māsir-i-Ālamgirī. It has been mentioned that complete two months were wasted in the construction of the road through the hilly region. Even after making the road, seven days were passed to approach the fort... the Mughals constructed the siege towers equal to the height of the fort wall and started the bombardment. On the 6th February 1704, Mughals escaladed the fort walls and after a decisive fight, the fort was surrendered by the Marathas. The fort was renamed as Nabishāhgaḍ.[49] But the Mughals could not retain the fort for a long time as we learn that the fort was again recaptured by Guṇājī Sāwant, the Maratha chief, in 1707.[50]

During the period of Shahu, the forts lost their significance, becuase, the theatre of war was shifted from the Deccan to the plains of North. But still Rājgaḍ was treated as an important fort. Shahu planned his campaign to the Viśhālgaḍ fort in the year 1708, from this fort only.[51] Even under the second Peshwā, a force of 2000 was maintained through the Sachiv on Rājgaḍ to check the Siddīs of Janjirā.[52]

During the subsequent periods a number of forts ~~were~~ passed into the hands of the several chiefs. The Rājgaḍ passed into the hands of the Sachiv of Bhor and it remained with the Sachiv family till its merger ~~in~~ with the Indian union after 1947.[53]

Notes

1. Toy Sidney - The fortified cities in India, P.37.
2. Goetz H. - Purandhar : Its monuments and their History- Annals of the Bhandarkar Oriental Research Institute, Poona, Vol. XXX, 1949, P.224.
3. Sarkar J. - House of Shivaji, P.41.
4. Ibid, P.42.
5. Sarkar J.-Shivaji and his Times, P.33.
6. Śivabhārata - 17th canto
7. Ibid, 17.15.
8. Ibid, 16.59.
9. Ibid, 16.61-62.
10. The Murum valley was the part of Gunjaṇ Māvaḷ and hence the hill possessed the name Murumdeo.
11. Swarājyātil Teen durg, P.20.
12. Rajwade, XVII,14.
13. SCS, X, P.54. In this document the name of hill is mentioned 'Shqhāmriga'.
14. SCP, P.41.
15. Sabhāsad - P.5.
16. SCP, P.41.
17. Persian Sources of India History, I, 39.
18. Kulkarni A.R. - 'Rājgad: The first capital of Shivaji,' Dr. A.G.Pawar, Felicitation volume, 1963- P.157.
19. Here we find the choice of Shivaji while selecting the place as a centre of his activities. The fort of Purandar, his first centre, was assoicated with another

fort Vajragaḍ. Rāyagaḍ, his final capital, was also associated with another fort Lingaṇā.

20. Douglas James - Book of Bombay, P.412.

21. Māsir - P.284.

22. Sabhāsad, P.5. Here it may be noted that Sabhāsad counts citadel as māchī

23. Māsir, P.284.

24. It is interesting to note that the name of one of the forts mentioned in the Rāmāyaṇa is Suveḷā (Mahārāshṭrīya Dnyānkosh - P.497).

25. Kulkarni A.R., Op. cit., 163.

26. Aitehāsik Sankirṇa Sāhitya, I, Pp. 117-119.

27. Khare, G.H. - Mūrti -Vidnyān - P. 181 27A, Purandare Dafter, III, Pp.130-144.

28. Swarājyātil Teen Durg, P.20.

29. SCS, III, 589.

30. Rajwade, VIII, 9.

31. Aitehāsik Sankīrṇa Sāhitya, I, P.70.

32. Rajwade XVIII, 57.

33. Kulkarni A.R., Op. cit. P.160.

34. AP, P.64.

35. Rajwade XVII, 30.

36. Ibid, 24.

37. Ibid, 24.

38. Ibid, 23.

39. SCP (JS), P.22.

40. Ibid, P.22.

41. Ibid, P.22.

42. Ibid, P.22.

43. Ibid, P.24.

44. Ibid, P.25.

45. Rajwade, VIII, 22.

46. Kulkarni A.R, Op.Cit. P.158.

47. SCP (JS), P.36.

48. SCP (GPS), P.68.

49. Māsir, Pp.288-89.

50. Sanadā Patre, P.193.

51. Rajwade, XVII, 33.
We learn from Peshwa Daftar that garrison from Rājgad was especially called by Shahu at Rāyagad when he captured it from Siddi in 1734. (Peshwa Daftar, 33.149, 150,161).

52. Rajwade, Vol. III, 10.

53. Kulkarni A.R., Op.Cit. P.159.

Chapter VIII

Fort capitals of Shivaji (2)

Rāyagad

Why Shivaji shifted his capital?

We have already seen in the preceding chapter that Shivaji finally shifted his capital from Rājgaḍ to Rāyagaḍ probably in 1670. As a matter of fact, the Rājgaḍ fort was impregnable owing to its preciptious nature and hardly accessible as it was surrounded by thick curtain of hills. Further we know that Shivaji strengthened it by building the fortifications around all the Māchīs. Neither Shaistakhan nor Jai Singh could attempt to reduce the fort. The problem that remains with us is why Shivaji shifted his capital to the Rāyagaḍ. We find the reason in his activities after his escape from Agra.

In 1670 Shivaji strengthened his position by acquiring almost all the forts[1] ceded to the Mughals in the treaty of Purandar. Jai Singh's expedition warned him that the forts on the Ghātmāthā could be captured by using strict blockade system. The Rāyagaḍ fort is situated in the heart of the Konkaṇ and it was hardly possible to reduce it by strict blockade, in the middle ages.

Moreover, Shivaji wanted to establish his full supremacy over the Konkaṇ region. To realise this it was necessary for him to keep the coastal area under his watch. Further for increasing his state income and the wealth of his people, it was necessary to develop over-seas trade. But it was not easy for Shivaji to establish supremacy over the Konkan and the west coast until he could extend his rule across the western ghats. This was the root cause of his decision for shifting his capital to the fort Rāyagaḍ from where he could increase the maritime activities as well as establish his hold on the Ghātmāthā and the Konkaṇ.

The fort Rāyagaḍ is situated nearly equidistant from Bombay, Poona and Sātārā. These three places were important to keep a check on the activities of his enemies as well as to spread the sway of Maratha power in the three regions of the Deccan viz., western coast for the Konkan, Poona for the Māvaḷ and Sātārā for the Ghātmāthā.

Another important point why Shivaji shifted his capital to Rāyagaḍ may be that it was his life long ambition to capture Janjirā fort.[2] This fort is situated 65 kms.away from the Rāyagaḍ. There were constant hostilities between the Marathas and the Siddīs of Janjirā. Shivaji had early captured the eastern part of the Kolaba district adjoining the Siddī's region, but the Siddīs successfully defended Rājāpurī and the adjacent territory. Sabhāsad says, 'the Siddis of Rājāpurī was to the king (Shivaji) an enemy like rat in a house.'[3] Shivaji fortified the hill near Rājāpurī and tried to reduce the Siddis in vain. The Siddīs defended the Janjirā very vigourously in the teeth of severe opposition from the Marathas. By the treaty of Purandar, the Mughals left the territory of the Janjirā and the adjoining dominions of Shivaji to him.[4] Now for establishing hold on the west coast, it was necessary for Shivaji to defeat the Siddīs. So it was obvious that Shivaji felt it necessary to select a place for his capital nearer to the Siddī's territory.

Besides, the fort Rāyagaḍ was at a vantage position, from which he could reach the gateway of the Mughal empire, i.e. Surat. If overwhelmed on land by his enemies he could retire by sea-route to the Karnatak region.

These are the main political and strategic reasons that led Shivaji to shift his capital from the Rājgaḍ to the Rāyagaḍ.

Rājgaḍ and Rāyagaḍ. A comparison

The fort Rāyagad is located on a lonely hill like that of Rājgaḍ and is separated by the valley of the river Kāḷ from the main range of the Sahyādri.

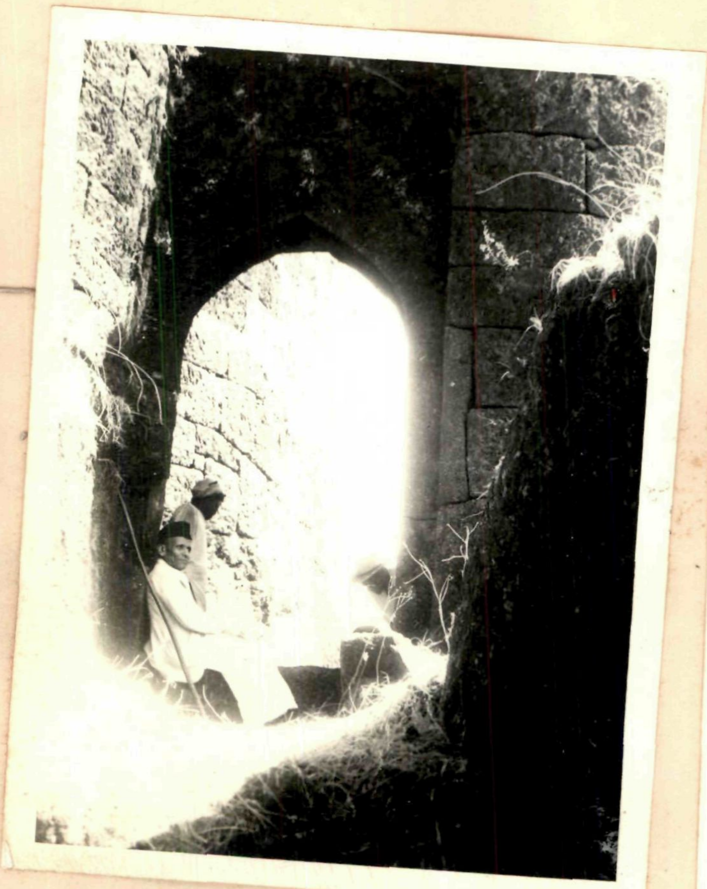
The height of the Rāyagaḍ is 870 ms.from M.S.L., whereas the height of the Rājgaḍ is 1372ms. above sea. But the actual height of the Rāyagad from the surrcunding plain is ~~still~~ more than that of the Rājgaḍ. The height of Pāchāḍ, a village situated at the foot of Rājgaḍ, is nearly 180 ms.from the sea level, and from here the top of the Rāyagaḍ is nearly 740ms.in height which covers a horizontal distance of about 6.50 Kms.

One could reach the foot of the Rājgaḍ only after crossing a hill and a river, a difficult task indeed for a foreigner. For reaching the Rāyagad also the crossing of a valley is indespensable, because it is surrounded by the river Kāḷ to the North, East and South, whereas by the valley of Gandhārī towards the South.

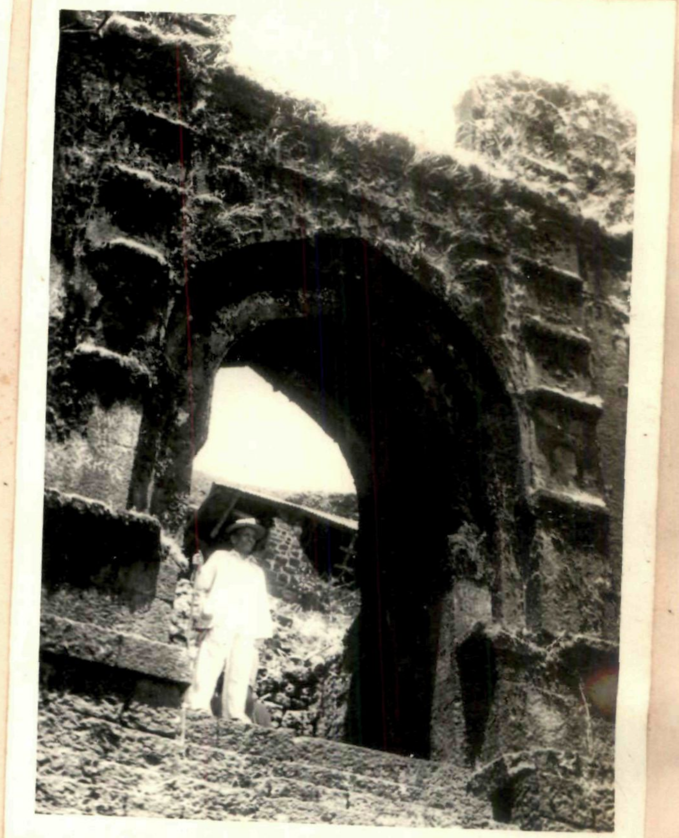
The Rājgad comprises three Māchīs of considerably narrow width and the Bāle_killa or citadel that covers inadequate ground. The Rāyagaḍ is having a spacious table-land on the summit of the hill. The actual summit stretches about 2.60 Kms/from the east to the West and by 1.60 Kms. from the north to the South. This summit rendered adequate

Pl. IX

a.
Gate of Balekilla,
Rājgad

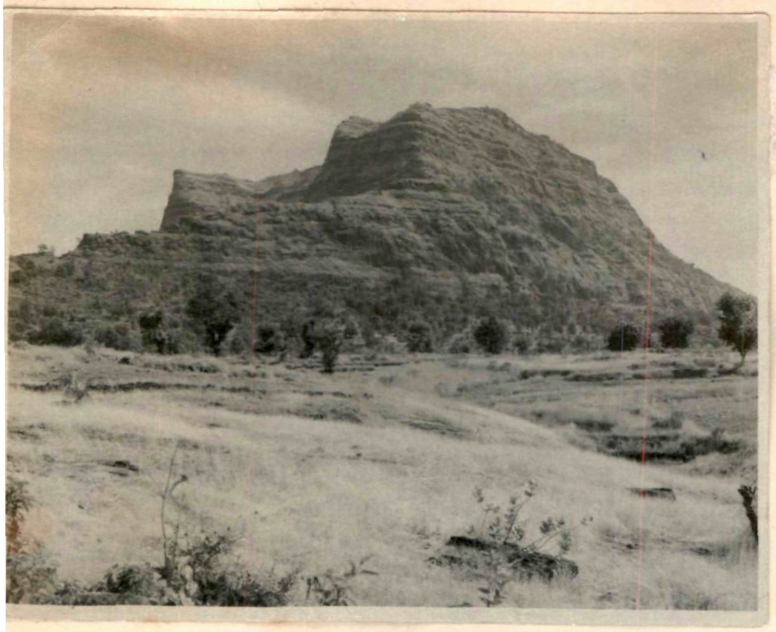


b. Gunjavane gate, Rājgad



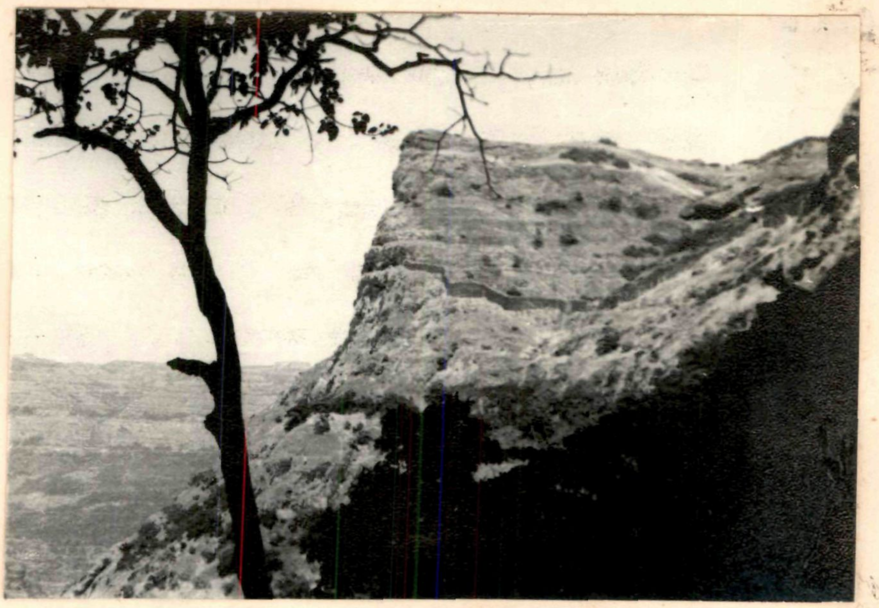
c. Gate of Balekilla
Rājgad

Pl. X



a.

Fort Rāyagad



b.

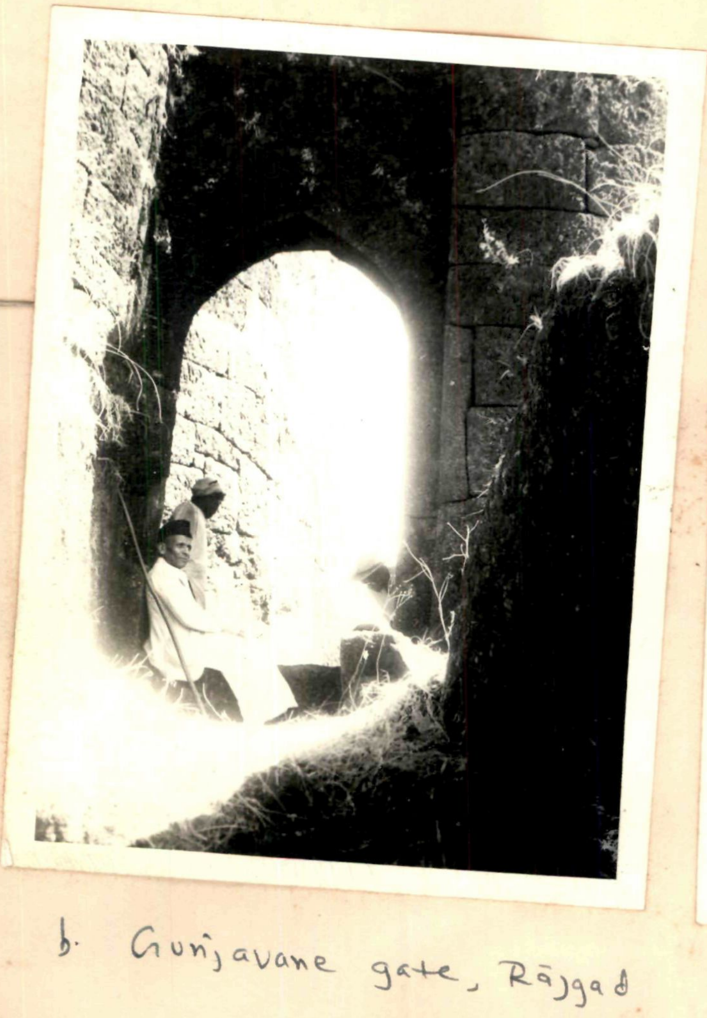
Takmak Point
Rāyagad

c

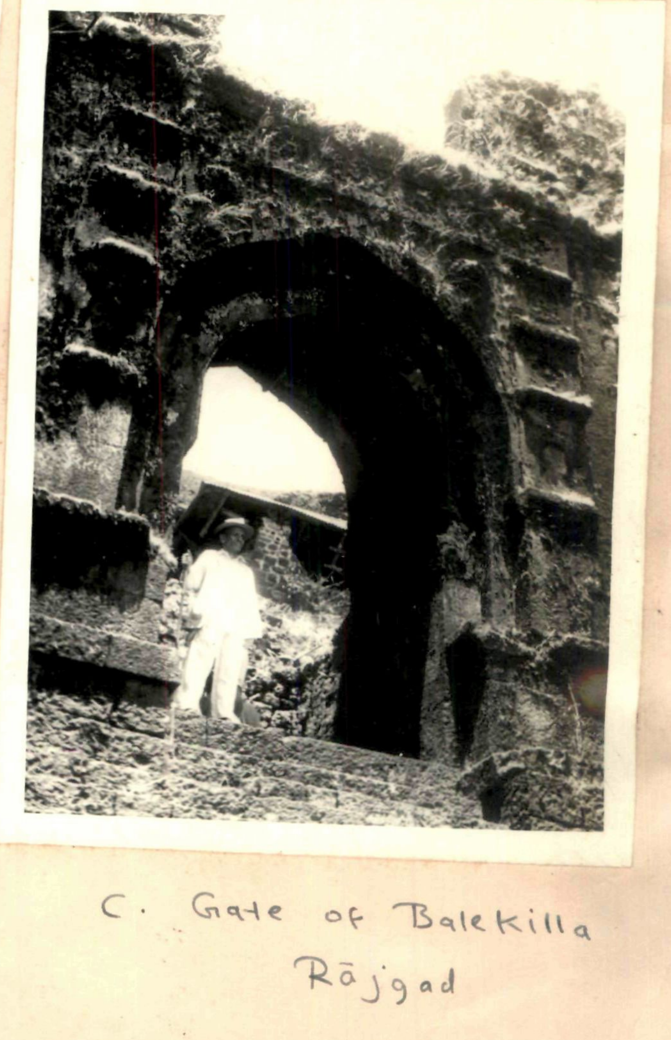
Fortification,
Rāyagad

Pl. IX

a.
Gate of Balekilla,
Rājgad

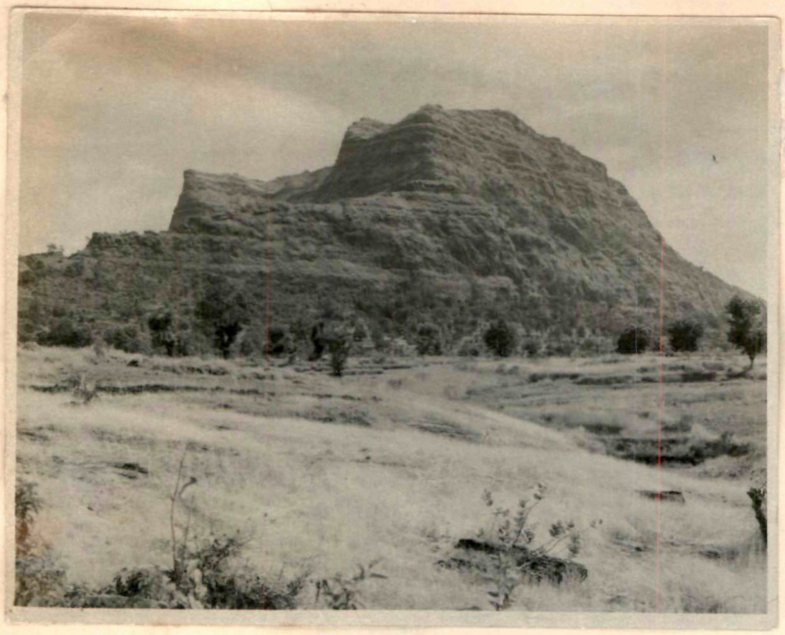


b. Gunjavane gate, Rājgad



c. Gate of Balekilla
Rājgad

Pl. X

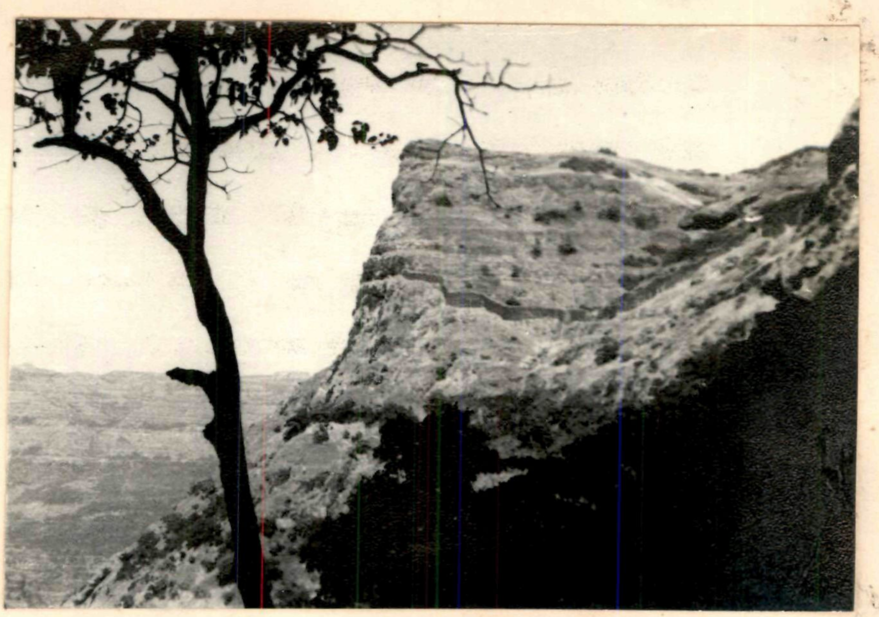


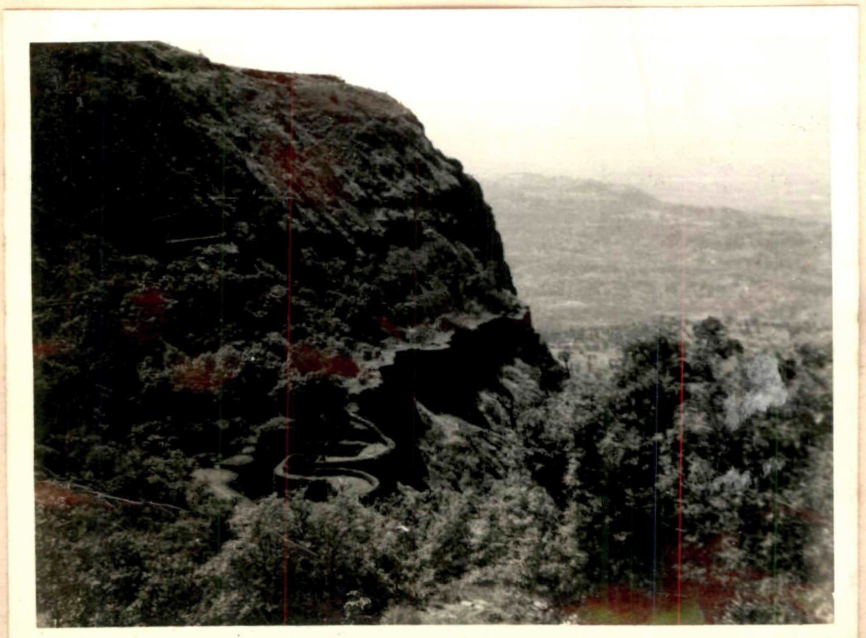
a.

Fort Rāyagad

b.

Takmak point
Rāyagad





c

Fortification,
Rāyagad

sites and plots that facilitated the construction of various military and civil buildings of the capital.

In short the new capital of Shivaji was well suited to keep a watch on the activities of the Siddī, to expand his territory in the Konkaṇ and the Ghātmāthā, and to develop the maritime trade and naval power.

Sabhāsad tells us why Shivaji selected the fort of Rāyagaḍ for his capital. 'The Raje (Shivaji) himself went to the Rāyarīgad and found that the fort was very excellent, the precipices on the four sides looked as if scarped perpendicular... During the rains grass did not grow on the cliff and it looked as if it were one chiselled block of stone.'[5] Further he comments, 'it is true that Daulatābād also is one of the finest forts in the world, but it is less in height. This fort, is ten times as high as Daulatābād.'[6] 'The Raje was very pleased to find it so, and he said that, this fort should be made the seat of his throne.'[7]

Rāyagaḍ and Gibraltar

The fort of Rāyagaḍ has been called by the foreigners the Gibraltar of the East.[8] But it can be pointed out that the fort Gibraltar was no match to Rāygaḍ as we find several draw_backs in it. Although Gibraltar looks every inch a fortress,' has a serious drawback of water supply. No good fresh-water springs exist here and rain in the summer is very rare.[9] In case of the Rāygaḍ the water supply was made abundent by Shivaji with providing several rock-cut cisterns. Even at present the tank like Gangāsāgar is always full of fresh water through the year. Further it has also been pointed out that Gibralter's greatest weakness is its dependence on the outside world for food; so barren is its surface that virtually no crops except a few vegetables can be grown.[10] Although the Rāygaḍ was barren, good provision was made for storing grains. Further the village Pāchāḍ, that can be treated as a part of the fort, was the 'peth' of the fort. James Douglas says, 'Pached is the ancient peth of the fort. Somewhat like the grange attached to barons keep and castle, the peth was the depot of supplies brought in from the surrounding country for the use of the garrison'.[11] But the more advantage over Gibraltar ~~the~~ gained by Rayagad was its close association with the fort of Lingāṇā, located only 6.50 Kms. away. From the Lingāṇā, fort it was easy to make necessary supplies in the time of emergency. The remains of granaries at the Lingāṇā fort[12] reveal that it was the best store or depot in the medieaval period. Thomas Niccolls, who visited the Rāygaḍ during the times of Shivaji rightly observes, 'if the hill (of Rāygad) be furnished with provision, a few men keep it from all the world.'[13]

The account furnished by Grose, an English traveller (1772) is worth quoting in this connection. '.... that the enclosure of it is large enough, independent of the stores accumulated there, to grow grain sufficient for the maintenance of its garrison, a handful of men, could with pleasure defend it against the greatest armies.'[14]

Rāygad: the second capital:early history ;

In early age when the hill Rāyagaḍ was not converted into a fort, it was known as Taṇas or Rāsivaṭā.[15] It was also called 'Nandādip', as the shape of the hill was like an earthen lamp.[16] In the 12th century the adjoining area of this hill was under the control of a Pālegār,[17] who selected Rāyari for his residence.[18] In the fourteenth century the Pālegār of Rāyarī was the servant of the Vijaynagar dynasty. Round about 1436 Allāuddin Bahāmanī captured this fort and annexed it to the Bahāmani kingdom. After the dismemberment of the Bahāmanī, the fort Rāyarī was secured by the Nizāmshāh, of Ahamaduagar in 1479. It remained under the control of Ahamadnagar till 1636 when the Kingdom of Nizamshāhī was merged into the Mughal Empire, and its parts were appropriated by the Mughals and the Adilshāhī of Bijapur. The fort now passed in the hands of Bijapur. Although the fort was under the direct control of the Ādilshāh, Chadrarao Mores, the Jāgirdārs of Jāvaḷī, were allowed to look after the administration of the Rāyarī. Shivaji captured this fort from the Mores of Jāvaḷī in 1656.[19]

It would be interesting to note why Shivaji was keen in bringing the Mores of Jāvaḷī under his control. Before annexing Jāvaḷī, Shivaji already had established his hold on the important passes like the Dhavaḷā ghāt, Hatloṭ ghāt, Koṇḍanḍḷī ghāt and Pār ghāt. It was absolutely necessary to bring all these ghāts under control in order to plan military operations in the vicinity of Jāvaḷī. Upto May 1656, Shivaji annexed the territory right from Kalyān Bhivaṇḍī to Chaul and the Rāyagad.

After getting the fort of Rāyagad, Shivaji appointed Abājipant and Rāmrāo Prabhu to look after it.[20] Although, Rājgaḍ was his capital, it seems that Shivaji often used to pay visits to Rāyagaḍ. After his escape from the Panhāḷā in 1660, Shivaji's relation with the English were embittered. Because in the Panhāḷā siege of Siddī Johar the English factors of Rājāpur supplied him with some grenades which were mainly responsible for disturbing the besieged. Shivaji reppened his hostility with the English and plundered the factory at Rājāpur and carried off four English factors as prisoners. He kept all of them in prison at Songaḍ.

But they tried to escape from that fort. So Shivaji transferred them to the Rāyagaḍ and kept them in closer confinement.[21] From the above account, it is obvious that Shivaji must be using this fort for political purposes.

According to the treaty of Purandar (1665) the Rāyagaḍ and its adjoining area was retained by Shivaji. The reasons for retaining twelve forts which included the Rāyagad and also Rājgad are described elsewhere.[22]

After his escape from Agra, the Portuguese viceroy of Goa sent his special representative, Gonzalo Martin to Shivaji at the Rāyagaḍ. The terms of the treaty between Shivaji and the Portuguese were settled at the Rāyagad on 11th December 1667.[23] All these activities of Shivaji clearly show that the Rāyagad was getting political importance before 1670 and it was used as a political centre. In 1670 he decided to shift his capital from the Rājgad and accordingly shifted it by the end of May.

Construction -

In its earlier stage the Rāygaḍ, like Rājgaḍ, too had no good buildings or fortifications required for a capital. It seems that ordinary fortifications existed before its occupation by Shivaji as he asked Ābājipant and Rāmrāo Prabhu to look after the structures at the Rāygad.[24] When he decided to make it capital, huge construction was undertaken. Sabhāsad tells us, ~~that~~ 'after deciding to make it a seat of his throne, Shivaji built houses, palaces, state rooms, buildings and separate mansions for the eighteen Kārkhānās, and Rānivasā for the residence of queens; similarly separate quarters for the Sarkar_Koons, Panchhazārīs, and dwelling houses for men of note, stables for elephants and horses and camels, and garages for palanquins and chariots, and cowsheds, in that fort with chunam plaster and hewn stones.'[25]

We learn from one contemporary document that Shivaji had sanctioned in 1672-73, a sum of 50,000 Hons for the construction of buildings at Rāygad.[26] The abstract of estimate was as follows

50,000		Rāygad
	35,000	structures
	20,000	Tanks
	10,000	Terrace
	5,000	Fort
	35,000	
	15,000 ...	rampart
Total	50,000	Hons.

As the provision of water was the main need of the fort, it seems that Shivaji had given priority to the construction of tanks. The two tanks constructed in the first instance might be the Gangāsāgar and the Hāthī Tanks of spacious length, breadth and depth (Fig.30). How these sites of water were chosen? It is very likely that the quaries dug for getting stone for building purposes might have led to the creation of these tanks.

About water-supply in general on the fort, a few geological observations were made during the survey. Two springs observed on the lower slope of the Rāyagaḍ fort have formed because of the presence of impervious clayey layer known as 'red bole' or Geru (in vernacular) below well jointed compact basalt. It is quite possible that a horizon of 'red bole' might be underlying compact basalt exposed in the water tanks on the summit. The general flatness of the surface and the presence of well jointed compact basalt in the tank area might have favoured percolation of water but lessened down hill flow. When the work of tanks was over, the citadel, residential quarters of 'Sachivs', and fortifications were constructed. Finally the famous temple of Jagadīshwar was constructed as we learn from the inscription that the other buildings like the citadel, the tanks, the stables, the sthambhās (minārs), had been already built and the temple was surrounded by them.[27] The date of the inscription is about 1674 and it is probable that the construction of temple must have been completed by the time of Shivaji's coronation. The work of construction was executed under Hirojī Indulkar, the Imāratī Havāldār of the Rāyagaḍ, whose name is inscribed in the inscription.

We will see that most of the buildings constructed on the Rāyagaḍ fort were similar to those at the Rājgaḍ fort, although varied in size. It has rightly been observed, 'It appears that Shivaji made Experiments at Rājgad and gave a final shape to his ideas at the Rāyagaḍ, his next capital.'[28]

How funds were raised?

No contemporary records throw sufficient light on the problem how Shivaji raised money for the construction of his new capital. However, we learn from an Ākhbārāt that Shivaji had carried off 66 lakhs of Rupees worth of booty from Surat-(Second sack of Surat in 1670)-viz. cash, pearls, and other articles worth 53 lakhs worth from Nawal Sāhū and Hari Sāhū and a village near Surat.[29] Sabhāsad tells us that, 'As he had brought goods by plundering Surat, so (how) he came back to his own country with innumerable goods and property, gold, gems, clothes (and) merchandise. (It was found) that property in all was to the value of two crores of hons had been brought.'[30] Further in the last month of the same year (1670) Shivaji looted Kāranjā (in Berār) and carried out the booty to the value of a crore Rupees.[31] The evidence is corroborated by Sabhāsad who says that Shivaji halted at Kāranjā for three days and after taking cash, jewels, gold, silver and rich clothes, he rode back to the (Rājgaḍ).[32] Further he states that the booty, when valued, was found worth seven crores.[33] It is obvious that a huge sum of this amount might have been disbursed by Shivaji for the construction of his new capital and for strengthening the important forts.

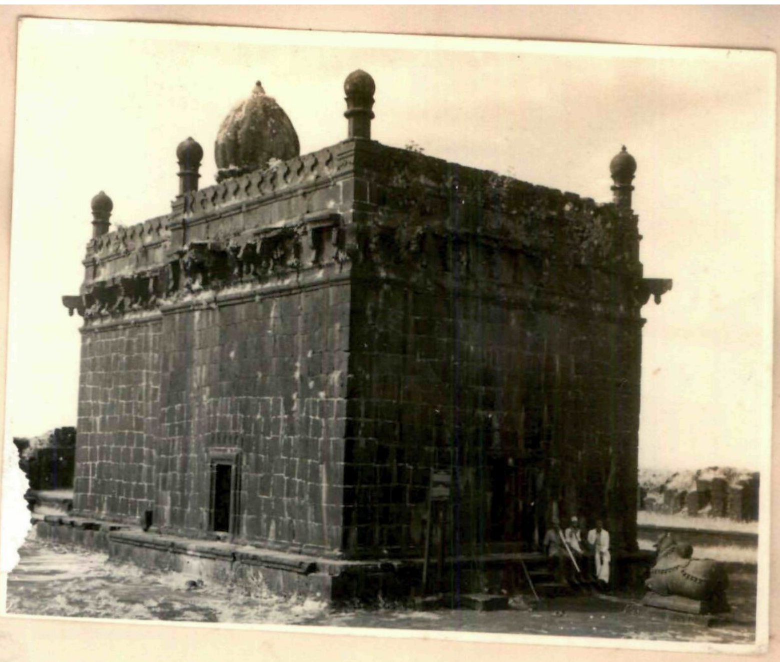
Ascent-

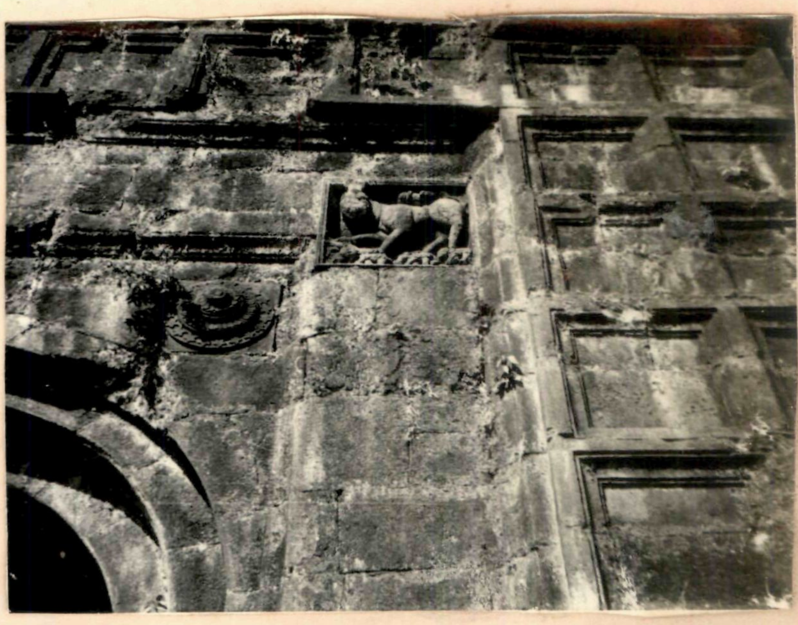
The fort of Rāyagaḍ (18°-14' N—73°-27' E), although provided with three gates, is accessible by only one route i.e. Pāchāḍ-Vāḍī route. Pāchāḍ was the peth of the Rāyagad which is at present an insignificant village at the foot of the fort. The distance from Mahāḍ to Pāchāḍ is about 22.62 Kms. and road leads upto Konzar some what parallel to the river Gāndhārī. Although at present the direct route to the fort is available from Pāchāḍ, the actual path of historical times was from Vāḍī, the village situated two miles away from Pāchāḍ. While ascending from Vāḍī, the remains of granaries and a patch of forest, which is known as Shivaji's garden, are tracable in the first place. We have already seen that Pāchāḍ was the peth of the Rāygaḍ. So these granaries might be the

Pl. XI

a.

Jagadishwar
temple,
Rāyagad





c. Nagārkhānā gate

b ✓
Nagārkhānā, Rāyagad

d.
Nagārkhānā
gate,
Rāyagad

ware_houses under the control of the pāchāḍ peth. At pāchāḍ the ruins of Jijābāī's palace indicate~~s~~ how it was fortified and spaciously built by Shivaji.

Khūblaḍhā bastion and Chit Darwājā

While going up, after crossing some distance from the granaries, the 'Khūblaḍhā' bastion can be seen to the North West. The bastion is constructed at a very strategic position where the spur of a hill is separated from actual fort by a deep gorge. (Fig.30). The height of the Khūblaḍhā bastion is about 8.25 ms.and circum~~sten~~ference comes to about 15.25m. It is said that the bastion was flanking to doorway known as 'Chit Darwāja' which is how not in existence. We get several references to the Chit Darwaja in the records of the Peshwàs.

The Khūblaḍhā bastion is broad at base and tapering towards the top, where the square loop is provided for gunnery. The blocks of basaltic stones were used for the construction of the bastion, (Pl.VI C). The name 'Khūblaḍhā' itself denotes its power of resistance. It commands an extensive area and from its location, it appears that there was one route from Pāchāḍ leading to the fort. The actual ascent was well protected by this bastion.

The Nānā Darwājā

While going up the Vāḍī route, the Nānā Darwājā can be approached after covering a distance of nearly 1 Km. from the remains of granaries. This door which was originally known as the Lahānā or small doorway is flanked by a bastion of 6 ms. in height. The actual doorway consists of two arches, and the distance between the two is about 6ms.[34] The heights of arches are 3.65ms and 4.25ms respectively and a large recess on either side of the passage is provided for the guard. These guard-rooms are hewn out from the rock. On both sides of the outer gate there are nitches in the jambs for the timber bar, now missing. The bastion is provided with battlements.

The Mahādarwājā; its path-

From the Nānā Darwājā the winding path goes to the east and West and after crossing the distance of nearly 1 Km, the remains of the two buildings are tracable. One of those measuring 12ms x 8ms is probably a guard room. The second one measuring 22.85ms x 6ms is said to have been the granary. From this point after passing a short distance we find the place of Masjid battery or Morchā mentioned in 1818 by L. Remon.[35] At this place probably the Masjid was built by Shivaji for the Muslim~~s~~, [36] residents of the fort. However, the remains of the Masjid are not tracable at present. But the tomb of saint Madārshāh is still in existence. No record throws any light on the history of Madārshāh. Near the tomb, three rock-cut caves are situated about 3.50ms. further. All these caves were used as storehouses. It seems that the said place of battery was made self-contained by providing the stores of grain, guard room, etc.

From this place, the path takes a sudden and very steep turn to the right. The path after a climb of about 100ms is more steep. For climbing 100 ms. above from the Masjid Morcha, one has to walk the distance of nearly half a mile, where the Mahādarwājā comes in sight. It is still 350ms. in height and 1 Km. in distance. This ascent of 350ms. is very difficult as the path goes very steep and at certain points the rock-cut steps of uneven sizes are made. After ascending this path, the gateway is approached by a flight of 32 steps. After passing the right bastion, the steps take a slight turn to the right, (~~sk.~~) Here the right bastion served as barbican to command the entry. The slight turn of steps towards the right formed the crooked entrance similar to those found in the forts of the period. Bahamani period (~~Sk~~ Fig. 4).

The Mahādarwājā

The actual gateway is flanked by two huge bastions of 23ms and 20ms height respectively. The bastions are still in a good state of preservation. The large blocks of stone were used for the construction of bastions. The distance between the bastions gradually rises from 2.50ms to 5ms. Both the bastions are loopholed for musketry. Here the gate consists of pointed arch generally followed by the Muslims. On both the sides of the gate we find sculptures of Gaṇḍbheruṇḍ (Fig. 22b). In the sculpture an elephant is shown under the claw of a lion (or tiger). Below the lion, the design of lotus is engraved. We find lotus designs again on both the sides of the pointed arch (Fig. 22b). It is curious to observe that the battlement crestings above the gateway are merely decorative designs. It seems that the defence of gateway was actually from the flanking bastions and not from the battlements of the gate proper (Fig. 22b).

It has already been pointed out that the bastion to the right side served as barbican. Here we find that the bastion could command the path of egress and ingress. They are constructed in such a manner that the actual doorway is concealed by them. In this respect we remember Amatya's instructions, 'gates should be built in such a manner that they should be escaped from the bombardment from below.'[37]

The gateway is also flanked by platforms for gate keepers (Fig. 22b). The actual gate was provided with timber bar, now missing, to close the gate firmly. Inside the gateway we find a sentry-box 1.80 ms. square cut into the rock at left ~~isde~~ side, while to the right a guard room was provided which is now in a ruined condition.

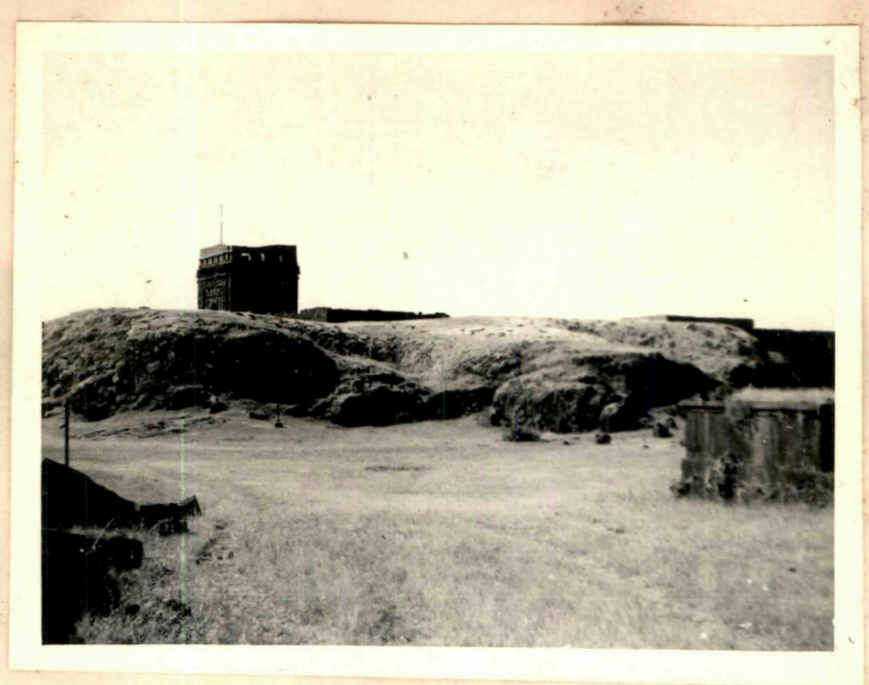
It is to be noted that this is the only way leading to the fort. Besides this gateway, we find one more on the south, which is known as the Wāgh or chor Darwājā (trap door). No Path leads to this gate. Probably this gate was created to guard against a surprise attack. (Fig. 30). It is obvious that this secret gate was useful for escape during the long besiege of the fort.

The Mahā-darwājā is provided with a strong curtain wall strengthened by massive bastions at specific intervals all along the whole north-west side of the fort (~~Fig.~~ Pl. X c)

Further one more curtain wall is provided for the protection of the hill top. This part of a hill is accessible and hence the construction of fortifications was indispensable.

After covering a distance of nearly 1.20 Kms. to the east from the Mahadarwājā one could reach the actual portion of the hill-top.

Pl. XII

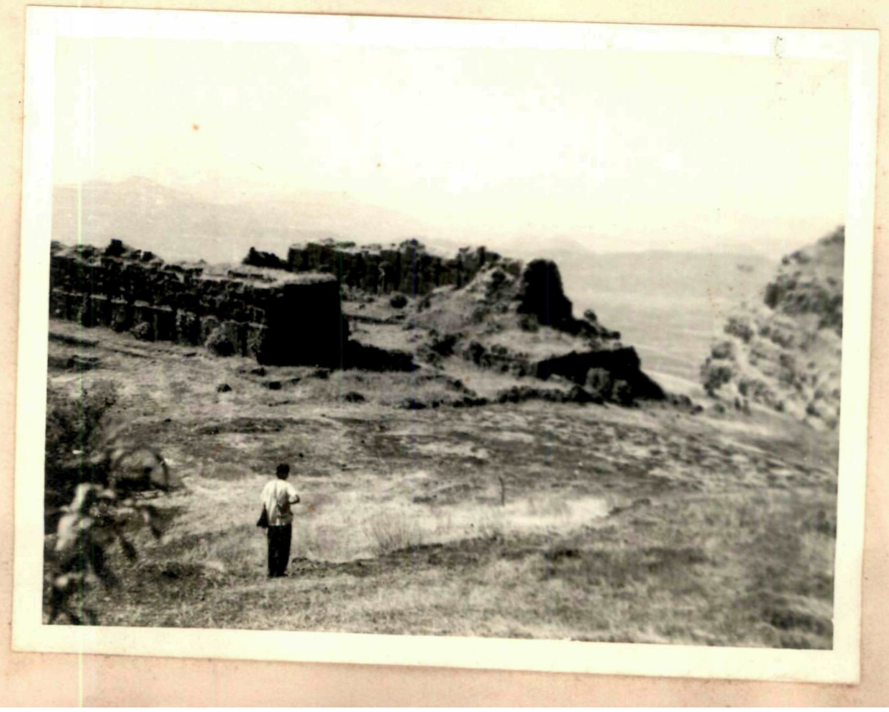


a.

Bale Killa,
Rāyagad.

b.

Gangāsāgar Tank
and Minars,
Rāyagad



c

Magazines,
Rāyagad.

Hill-Top

The hill-top stretches about a mile and a half from the east to the west; by a mile from the north to the South. It forms an irregular wedge shaped block tapering to the east, with three main points, Hirakaṇī in west, Ṭakmak in the North, and the blunt point of Bhavānī in the East (Fig. 30). Besides these three points, one more smaller point Shrigondā is at the South-east corner. (~~Fig. 30~~).

On the hill-top we find the extensive table-land ~~a~~ although some mounds and hollows cover some portion of it. This extensive table-land provided the sites for the construction of various buildings on the fort. The hill-top is not favourable for the growth of vegetation. But we find some trees on the eastern slope of the Bāle-Killā. ~~In~~ The West, South and East sides of the hill-top are defended by natural scarps and therefore no attempt was made to provide any artificial fortifications.

The fort Rājgad is accessible by three routes and has no advantage of extensive summit as it consists of three separate māchīs plus Bālekillā, (Fig. 26a). In the absence of extensive summit, the important buildings like magazines, market-yard, etc. were built at Rājgaḍ, wherever sites for such construction were available (Fig. 26a), whereas in the case of the Rāyagaḍ fort, the extensive summit rendered proper site for magazines and market yard (Fig.30).

Monuments -

A fort capital was as busy a centre of activity as any land capital. We, therefore, come across a number of monuments on forts meeting the requirements of a capital.

On reaching the hill-top, the path leads at first to a point where the tomb of Madārshāhā is located. The structure is very simple without any ornamental feature. Probably it is the tomb of famous Madārī Mehatar who helped Shivaji in his great deliverance from Agra. In front of the tomb, an iron bar, popularly called the 'Malkhāmb' or Gymnast's piller, is seen. The surface of this pillar is now very crude and the inscription thereon is too difficult to decipher.[33] This pillar, though believed to be a Malakhāmba, ~~an iron piller~~ seems to be erected in the memory of some reputed personality.

The Hāthī Tank-

Near the Madārshāhā's tomb, an oval-shaped reservoir measuring 36.5m, x 23m, is hewn in the rock, (Fig.30). Probably this was the first tank excavated by Shivaji after shifting his capital. This tank is known as the Hāthī Tank.

The Gangāsāgar Tank -

About 100 m. further to the South of this is the Gangāsāgar tank measuring 110 m. x 90 m. This tank is also hewn in the rock on the south and the east, and on the west it is built with dressed stones. It is said that the treasures are concealed into the tank.[39] This tank had provided main water supply to the garrison within the fort. For king and his family we find that one separate reservoir was provided near the citadel.

Minārs-

About 100 m. south of the Gangasagar tank two-storied towers known as minars are located (Fig.17 a, Pl. VII b). They face to the north and are about 12 m. in height. It is said that originally these towers were having five stories. Both of them are ornamented with carved masonry which stands out about 0.60 m. from the walls. These are the best specimen of Muslim architecture borrowed by Shivaji. They are mentioned as 'stambhās' in the inscription of Jagadīshwar temple.[40] Both of them are twelve sided and on each side they have a pointed window in the Muslim style. A room of 4.25 m. height is formed with a domed ceiling inside the tower.

The Bāle-Killa-

From the towers, a flight of 31 masonry steps lead through the 'Pālkī Darwaja' into the Bale-Killa. A flight of steps is flanked by the walls of masonry and the gate is 1.80 ms wide and 3 m high.(~~Fig.~~).

The Balekilla or citadel occupies very extensive area of 300 ms by 160 ms. Along the west side of the citadel, from the Pālkī gate a path leads to the Meṇā gate between a double row of ruined buildings. On the right we find the remains of six ~~age~~ large mansions,[41] known as Rāṇi-Vasā or the apartments of the queens (Fig. 28 b). Each quarter was provided with one central hall and other small rooms (Fig. 28 b). The separate sanitary blocks were provided to all these quarters (Fig. 28 b).

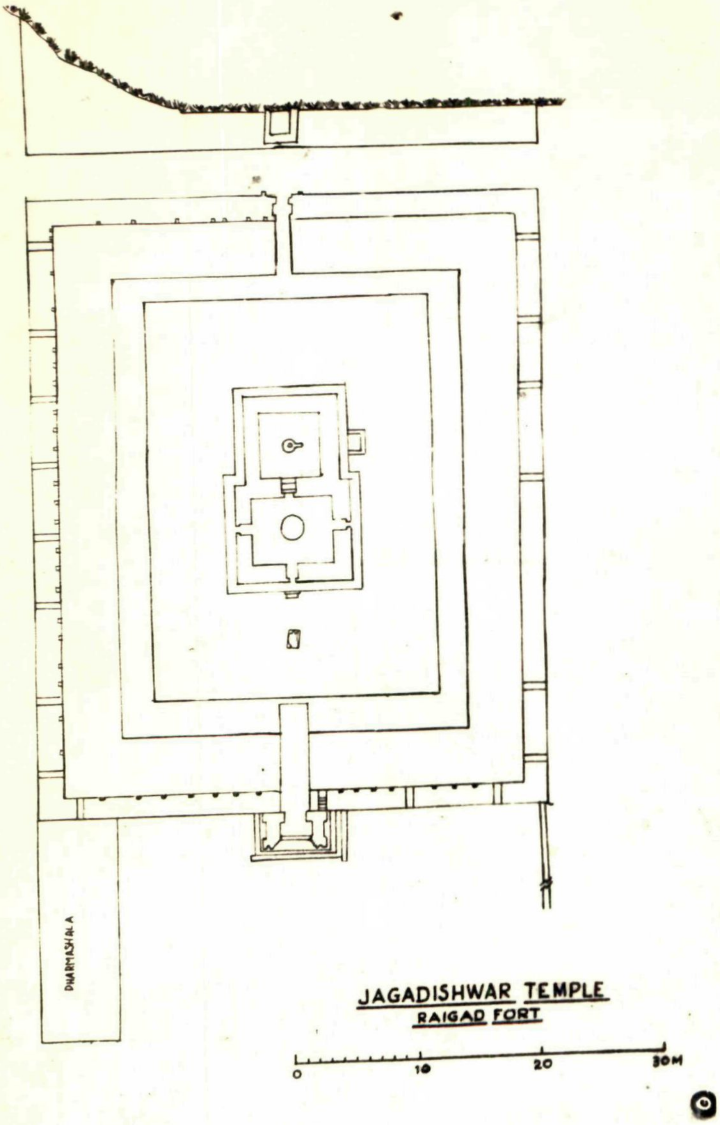
Sabhāsad tells us that Shivaji constructed separate 'Mahāls' for his queens.[42] Chitṇīs and other chroniclers state that Shivaji built eight Mahāls for his eight queens. As a matter of fact only six Mahāls were constructed by Shivaji. Out of them four might have been built for his queens and the remaining two for his sons. We learn from other sources that at the time of Shivaji's coronation, only four queens were alive.[43] So it may be presumed that these six Mahāls were distributed among the four queens and two sons viz. Sambhaji and Rajaram, ~~and in front of queens~~

~~quarters~~.

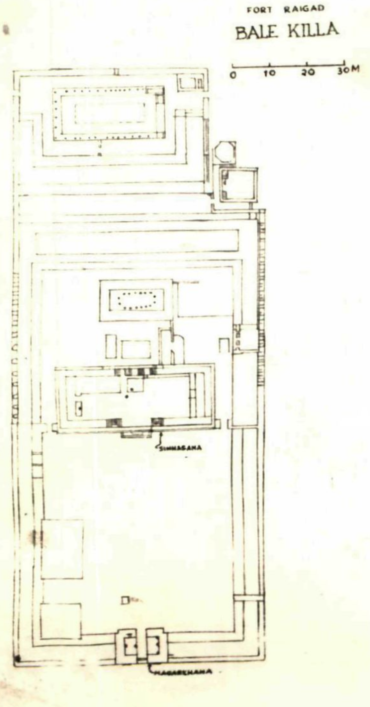
To the left side of the path we find the remains of small quarters which were probably for the guards or servants of the queens and princes.

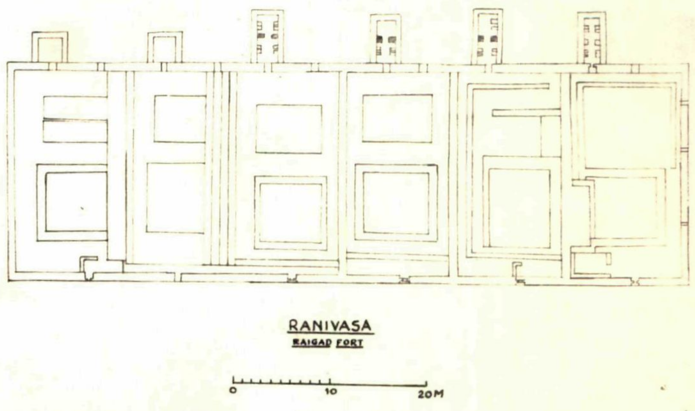
Behind the quarters of servants a wall runs parallel to Queen's Quarters. In this wall there is a gap about 9 m~~s~~. broad to the east and left to the Pālkī gate. Through this a path leads to the backside of the king's court. Probably, there was a gate in the place of the ~~get~~ gap. After entering through this gate/we find several structures in a ruinous condition. Immediately in front of the gap, the remains of one specious structure, 26m~~s~~-long and 9.50m~~s~~. broad, can be seen~~,~~ (Fig. 28b). Probably this was the quarter of Shivaji himself. To the north of this quarter, there are two tanks which are succeeded by another two towards further north. After crossing these tanks, there is a door to the north wall. The door leads to a sanitary block, specially built for the king. (~~Fig. ——~~). After walking some distance from this place towards the east, one can reach to a treasure-house or a 'Ratnashālā.' This structure is constructed under-ground and accessible by a flight of twelve steps. The room measuring 6m~~s~~ in length and 3m~~s~~ in width was probably used for storing precious jewels, gold, silver, etc. It is also possible that this

Fig. 28


DHARMASHALA
JAGADISHWAR TEMPLE
RAIGAD FORT
0
10
20
30M

a


FORT RAIGAD
BALE KILLA
0
10
20
30M
SINHASANA
NAGARKHANA


RANIVASA
RAIGAD FORT
0
10
20M

b

secret place (Mantrashāḷā) was used to conduct the meetings of utmost secrecy.

Towards further east, there is a spacious plinth on which numerous marks of the pillars are visible. This place was probably the Secretariat (Sadar) or 'Daftar-Mahāl' mentioned in the 91 Qalami Bakhar.[44] After crossing a few steps from the Sadar towards the east, there is another plinth on which the marks of round and square pillars are tracable. From these marks it appears that this building was octagonal in shape (Fig. 28b). Probably it was the 'Ashtakonī Mahāl' mentioned in the 91 Qalami Bakhar.[45] While going further we find the remains of plinths, etc. on the left side. These might be the various buildings like 'Viveksabhā,' 'Kalyāṇ Mahāl,' etc.[46] After covering a short distance, one can reach to the back side of the building of Shivaji's throne. The brick walls of the building are standing without any roof. It seems that the tiles were used for the roofing of the king's palace and other buildings in the Bālekillā. We learn from one unpublished paper that 20,000 new tiles were used for roofing in 1773-74.[47] The place of actual throne is a raised platform of 4m. in length and 3.29m. in breadth (Fig. 28b).

In front of the throne 1.50 ms. wide runs a passage along the whole length of the building. In the east wall we find twelve arched windows, each measuring about 1 m.x 0.45m. Here again we find Islamic influence on Maratha architecture. In front of the court we find the remains of a fountain. Little further to the east is the main entrance to the citadel, popularly known as Nagārkhānā.

The gateway of the citadel is very impressive and still stands in good state of preservation. (Pl.XI b). It is a solid structure built in dressed stones with a pointed arch (Pl.XI b). The surface of the flanking walls is decorated with the panels as we find the same in the case of the gateway of the citadel of the Rājgad (Pl.XI c). The height of the gateway is 9.15ms. with a span of 2.50ms. The building is about 12ms in height, 9.15ms wide and 6ms deep. The whole work of this Nagārkhānā resembles Indo-Islamic architecture particularly visible at ~~46~~ Bijapur.[48]

Above the gate we find the sculptures of Gajaśārdūla or Gaṇḍa-Bheruṇḍa [49] in relief on either side. The sculpture at right is unique as it shows four elephants under the four feet of a tiger (?). Again one elephant appears mounting on the back of the tiger and stretching the tail of it by his trunk (Fig. 29). The four elephants shown below are carved in different positions (Fig. 29). The waist-belt of the tiger is ornamented and the three elephants out of the four shown below are provided with 'back-covers'. The sculpture, which is to the left side, is again a different one. Here only one elephant is shown under the front right feet of a tiger. Further one elephant is shown standing on the tail of a tiger, (Fig. 29). The waist-belt of the tiger is beautifully ornamented. Here a belt of chain on the waist is shown with the projecting design of leaves and flowers. The elephant shown below is provided with a back-cover having the ringing bells at its ends, (Fig. 29). It seems that the sculpture of Gandabheruṇḍa which denotes the tiger so strong as to dominate a number of elephants was traditionally accepted by various rulers of the medieval Deccan including Shivaji.

From the inside of the gate a flight of twentynine steps leads to the top where the drum-room (Nagārkhānā) is located. Further a flight of ten steps leads to an upper parapet from where a panoramic view can be seen.

Sachivas' Houses

Leaving the Nagārkhānā and after passing a short distance towards the east, we find a dry reservoir called Kuśāvarta. From here the point of Shrīgondā is at a short distance. ~~(Fig.).~~ Near this point we find several ruins known as the remains of ministers' houses (Fig. 30).

Actually we can trace the ruins of four houses and other remains of small buildings in between them. The plan of a minister's house is identical with that of the queen's quarter. It seems that the ministers' houses were provided with independent sanitary blocks as the remains of the two are tracable. The remains lying between the ministers' houses must be the remains of servants' quarters.

The Magazines-

To the east of the Shrīgondā point on a low level we get the ruins of two powder Magazines. Both of them are now in a ruinous condition as they were destroyed during the English siege by shells fired from the ridge 'Kāḷkāi'.[50] Each measures 28 ms. long, 6ms. broad with the walls 1m. thick. The walls were constructed in the large blocks of stones like the other buildings on the fort. It is to be noted that the site of the Magazine was selected far away from the citadel as well as from other important buildings (Fig. 30). This selection of site for the Magazines is as per the principles laid down by Ramachandrapant Amatya.[51]

Near the powder Magazine there are twelve rock-cut cisterns which have dried up now. The reason for providing a number of tanks near the Magazines is obvious. Amatya says, 'During fight the springs get dried up owing to the noise of guns and hence arises the difficulty of water. Therefore for storing water two or four (or a number of) reservoirs should be constructed.'[52]

The Bazaar/Peth

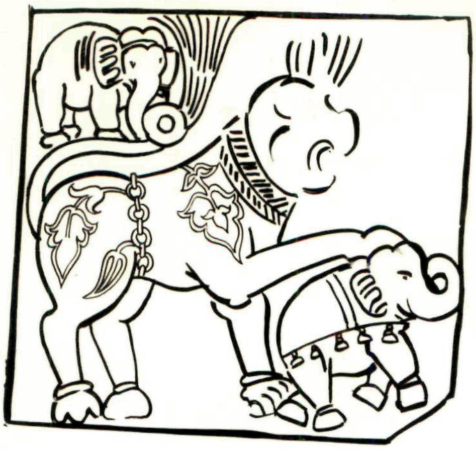
To the north of the citadel after covering a distance of nearly 150 ms, we find the ruins of a market yard. There are two rows of twenty-two shops (~~Pl.~~ Fig. 30), each measuring 13ms x 9.50 ms excepting the last one (13 m x 5m) of right row (Fig. 30). The path of 12ms in width leads through these two rows. Here it may be noted that a considerable height of the plinth of the shop facilitated the customers to purchase the commodities easily without dismounting from the horse. The market yard of the Rāyagaḍ fort (~~Pl.~~ Fig. 30) is more spacious than that of the Rājgaḍ fort (Pl. VIIIc). At the Rājgaḍ the market place is located actually on the citadel whereas it is situated in a central and plain place on the Rāyagaḍ (~~Pl.~~ Fig. 30).

Elephant's stable

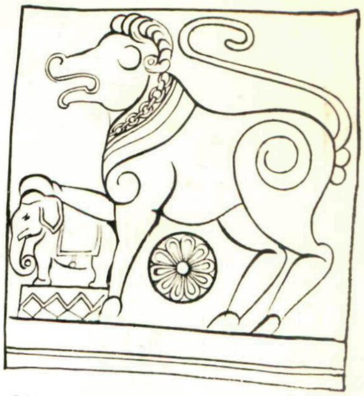
To the north-west corner of the market-yard, we find the remains of 'Pilkhānā' (elephant stable) (Fig. 30). The building is now in a dilapidated condition. It is yet a matter of great wonder how elephants were carried to the

Fig. 29

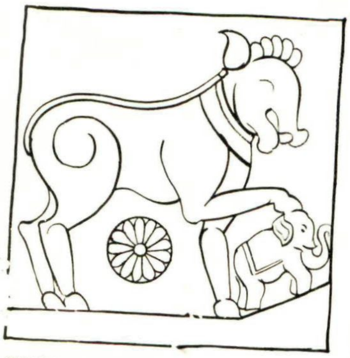
a



GANDBHERUND (LEFT)
MAIN GATE CITADEL - RAYGAD

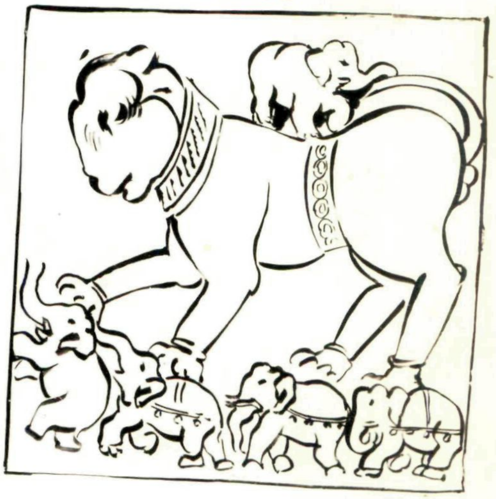


GANDBHERUND (RIGHT)
MAHADARWAJA . RAYGAD



GANDBHERUND (LEFT)
MAHADARWAJA . RAYGAD

GANDBHERUND (LEFT)
MAIN GATE CITADEL - RAYGAD



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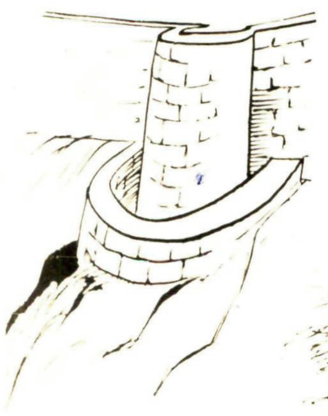

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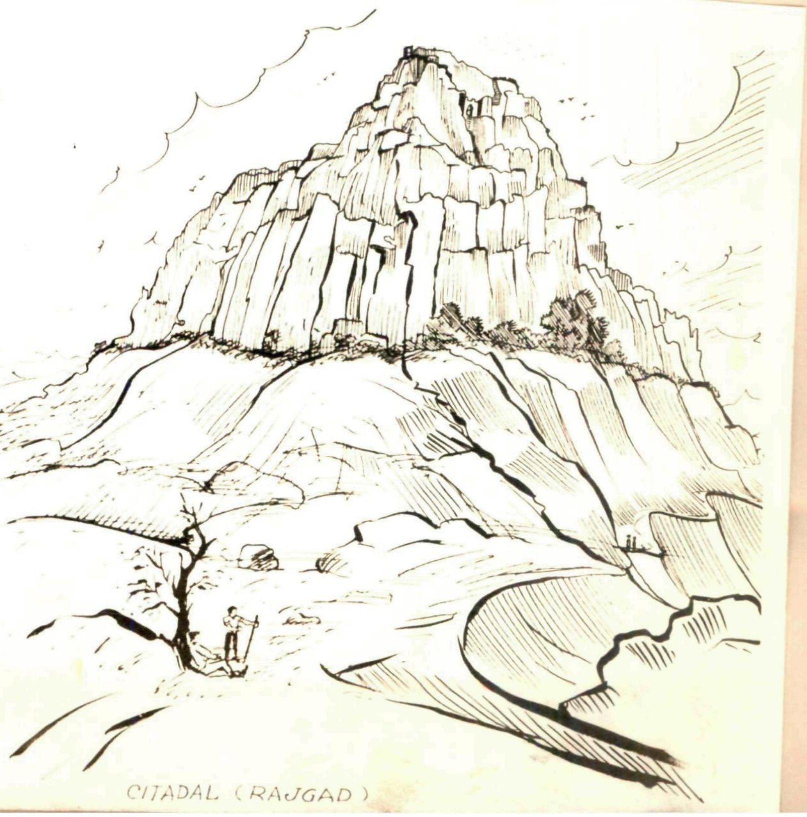


CITADAL (RAJGAD)

top of the hill. Henry Oxinden, an English representative, who attended the coronation of Shivaji, could not get a satisfactory answer. He writes, 'as we returned at the pallace gate there was standing two small ellephants on each side and two faire horses with gould bridles and rich furniture, which made us admire which way they ~~r~~brought them up the hill, the passage being so difficult and hazardous.'[53]

The Jagadīshwar Temple -

After passing the market yard the path leads to the famous temple of Jagadīshwar towards the east. On the way to the temple from the Market-yard one finds the remains of one tower and quarters of the Brahmans. These structures are now in a ruinous condition. The pond near the quarters of the Brahmans is dry.

About one and half mile to the north-west of the citadel, the temple of Jagadīshwar is located, (Fig.28a). The temple itself is in a walled enclosure mea~~sru~~suring 36m X 41m with main entrance towards the east and a trap-door to the west (Fig.28a). It is believed that the quarters round the temple were meant for dancing girls attached to this temples. Perhaps these are meant for the worshippers and devotees of the temple. The Sabhāmaṇḍapa of the temple is too narrow to provide a platform for dancing purposes.

Further it is hardly possible that the king like Shivaji allowed such trivial tradition. As a matter of fact the buildings around the temple might be the 'Sarāī' or 'Dharmashālā' generally built for a brief halt of the pilgrims.

The actual temple is 10.60 ms in length 6.70 ms. in breadth and 5.50ms. in height. The large blocks of the basalt are used for the construction of the temple. It consists of a Sabhāmaṇḍapa measuring 6.50 ms x 5.50 ms and Garbhagriha measuring 5 ms x 5ms. The plan of the temple is mostly identical with that of the Hemāḍpanti style (~~Pl.~~ Fig. 28 a). But the structure is built after the Muslim style having four minarets at four corners and dome-like 'Shikhara' above the 'Garbhagriha' (Pl. XI c). It is intersting to note that, on both sides of the main gate of the temple two ~~minds~~ minārs have been carved. ~~(Fig. ——).~~ Here we find the impact of Islamic architecture on the construction of the Hindu temple. In the front of the entrance gate towards the east, we find the image of the Nandī (~~Fig.~~ Pl. XI a). In the Garbhagriha, the Lingam is placed in the centre.

Outside the main entrance of the temple, there is a building known as a Dharmashālā towards the left (Fig 28 d). This structure, it seems, might have been constructed ~~in~~

in the later period.

The Samādhi of Shivaji

In front of the eastern entrance to the temple, there is a large octagonal plinth where the Samādhi of Shivaji is built recently in the year 1926.

Other remains

One Km. further towards the south there ~~one~~ are certain ruins in a line covering a long range. These are ~~the~~ probably the quarters of the garrison or for visitors. It is believed that Henry Oxinden, who visited the Rāyagaḍ during the coronation, was staying in one of these houses situated at a distance of about 1.50 Km~~s~~. from the citadel.

To the east of these ruins, the Kāḷā Kuṇḍ is located on the extreme edge of the plateau.

The extreme eastern edge of the fortress is called the Bhavānī point. (Fig.30). Here ~~there~~ is a rock-hewn cave with a very difficult access. The crude image of Bhavānī in this cave is still under worship. From this point the fort Lingāṇā is distinctly seen

Passing to the north-west the most prominent point is the Ṭakmak Burj (Fig.30). It is a huge precipice down and it is said that the criminals, traitors were hurled down from this point. We learn that Changojī Kāṭkar, the killedār of the Rāyagad, punished Yesājī and Sidojī Furjand in 1689 by hurling them down perhaps from this point.[54]

On the extreme west there is the 'Hirkaṇi Burj' located about 60 ms. below the citadel. The point is defended by a walled bastion. Here the ascent from below to the fort is comparatively less difficult and therefore Shivaji might have got it fortified.

Administration of the fort-

In 1674 Shivaji coronated himself and the fort of Rāyagad became his official capital. As it was the place of the king's residence, utmost care might have been taken for its administration.

We do not know who was working as Havāldār of the Rāyagad fort during the period of Shivaji. We learn that Shivaji asked Ābāji Mahā Sendev, the Subhedar of Kalyan, to carry on the construction work of buildings required for the capital. Accordingly Ābāji Mahā Sendev constructed 300 buildings which included the king's palace, various offices, granaries, water cisterns, Magazines, quarters for garrison, market-yard, etc.[55]

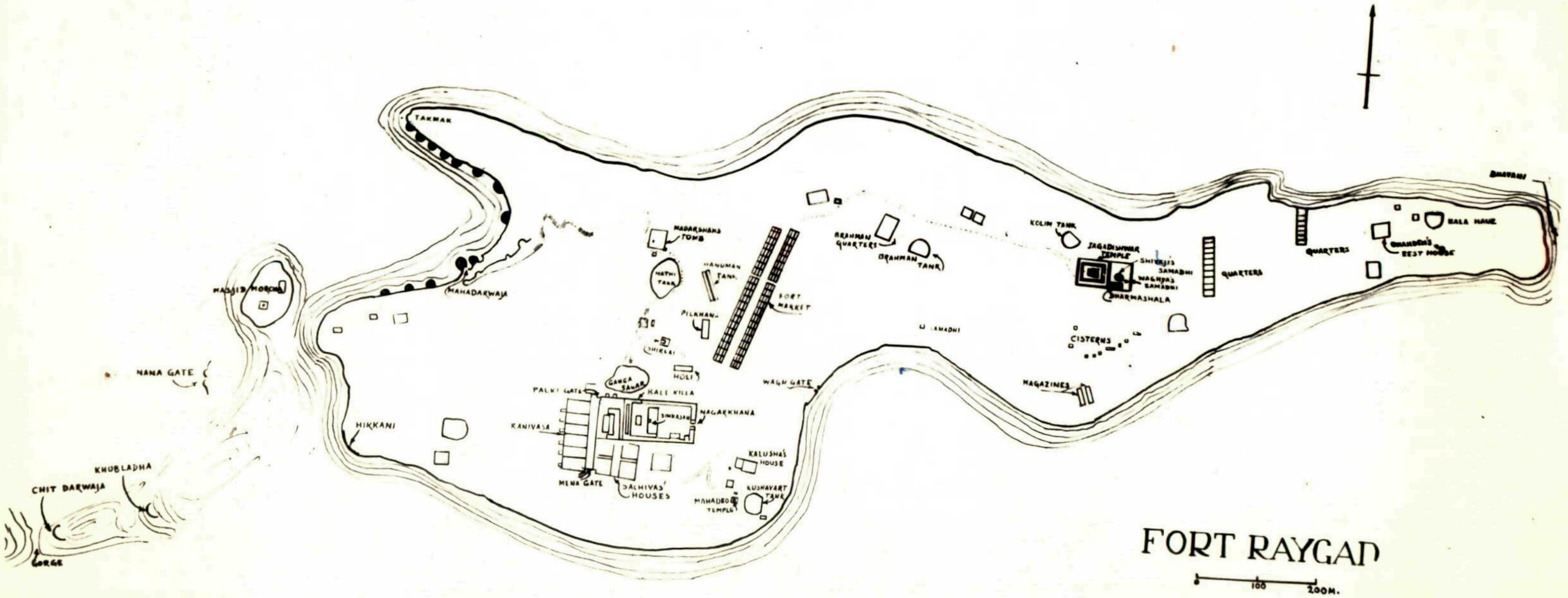
We learn from one document that Rāgājī Datto was the superintendent of the royal treasure during the year

1673-74.[56] Shivaji asked him to get prepared the throne for him.[57] In the age of Sambhaji, Bahirajī Nasik Ghātge was the superintendent of the Royal treasure.[58] After his accession to the throne Sambhaji ordered all the clerks of the royal stores to sumbit lists of the property, in cash and kind, accumulated by Shivaji. In a nearly contemporary chronicle we find a detailed list of the property.

Hirojī Indulkar was the Imāratī Havāldār at the Rāyagad fort till 1687. In this year Sambhaji suspected him as disloyal and imprisoned him.[58] It is not known who was appointed in place of Hirojī.

It seems that a separate post of the 'Daftardār' was created for official correspondence. In the time of Sambhaji (1680 - 1689) Ragho Swānand Bāpuji Diwākar was working as 'Daftardār' at Rāyagad.[59]

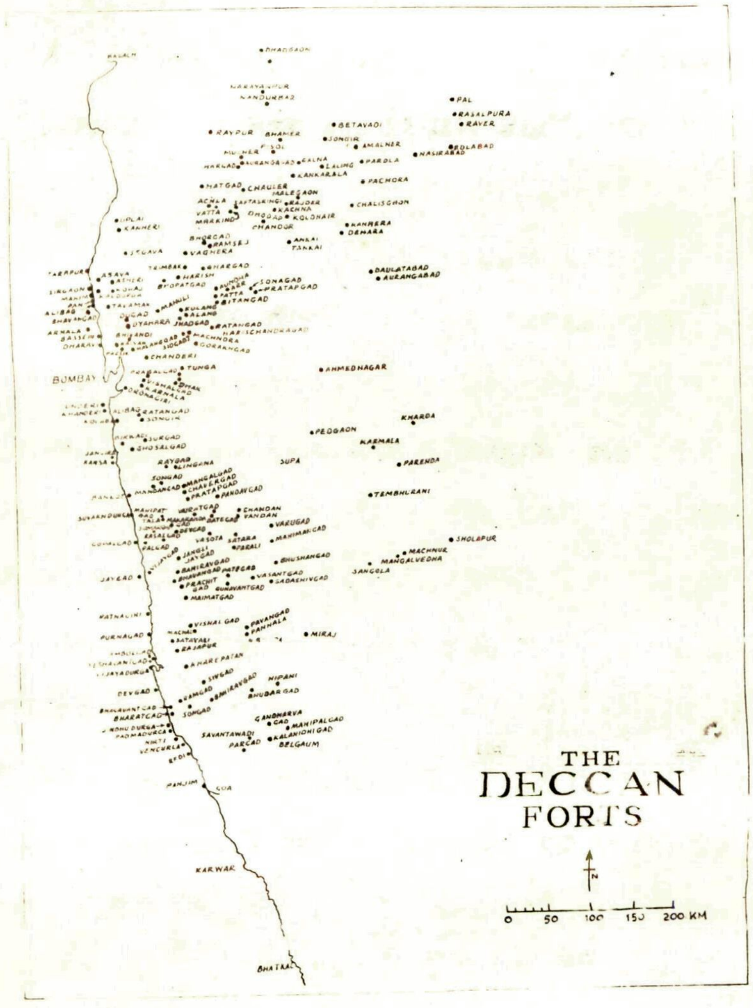
In Febmuary 1689, Sambhaji was imprisoned by Shaikh Nizam, the chieftain of Aurangzeb, at a village Nāvadi near Sangameshwar(district Ratnagiri).[60] On receiving this news, Changojī Kātkar, the Havāldār of the Rāygad, and Yesaji Kank, probably the chief official of the fort, released Rajaram and seated him on the throne.[61] Mānājī More and other secretaries (Sarkarkoons) were also released and restored to their former positions.[62]


TAKMAK
MASJID MORCHA
MAHADARWAJA
NANA GATE
HIKKANI
KHUBLADHA
CHIT DARWAJA
GORGE
MADARSHANA TOMB
HATHI TANK
HANUMAN TANK
FORT MARKET
PILKHANA
SHIRKAI
HOLI
GANGA SAGAR
PALKI GATE
BALE KILLA
SINHASAN
NAGARKHANA
KANIVASA
MENA GATE
SACHIVAS' HOUSES
KALUSHA'S HOUSE
KUSHAVART TANK
MAHADEO TEMPLE
WAGH GATE
BRAHMAN QUARTERS
BRAHMAN TANK
SAMADHI
KOLIM TANK
JAGADISHWAR TEMPLE
SHIVAJI'S SAMADHI
WAGHYA'S SAMADHI
DHARMASHALA
CISTERNS
MAGAZINES
QUARTERS
QUARTERS
CHANDRA'S REST HOUSE
BALA HAUZ
BHAVANI
0
100
200M.

FORT RAYGAD

Fig. 30

Fig. 31


THE
DECCAN
FORTS
N
0
50
100
150
200 KM
DHADGAON
NARAYANPUR
NANDURBAR
PAL
RASALPURA
RAVER
BETAVADI
RAYPUR
BHAMER
SONGIR
AMALNER
EDLABAD
NASIRABAD
MULHER
PISOL
HARGAD
AURANGABAD
GALNA
LALING
PARDLA
KANKARALA
PACHORA
HATGAD
CHAULER
MALEGAON
ACHLA
SAPTASRINGI
RAJDER
KACHNA
CHALISGHON
VATTA
MARKIND
DHODAP
KOLDHAIR
CHANDOR
KANHERA
DEHARA
UPLAI
KANHERI
BHORGAD
RAMSEJ
ANKAI
TANKAI
VAGHERA
TRIMBAK
GHARGAD
DAULATABAD
AURANGABAD
TARAPUR
ASAVA
ASHERI
HARISH
BHOPATGAD
AUNDHA
PATTA
SONAGAD
PRATAPGAD
SIRGAON
KOHAJ
MAHIM
BITANGAD
TALAMAN
MAHULI
KULANG
ALANG
ALIBAG
BHAVANGAD
DUGAD
UTAHARA
JHADGAD
RATANGAD
HARISCHANDRAGAD
ARNALA
BASSEIN
BHIVANDI
MACHNORA
DHARAVI
SIDGAD
GORAKHGAD
CHANDERI
AHMEDNAGAR
PRABALGAD
TUNGA
BOMBAY
VISHALGAD
DHAK
KARNALA
DRONAGIRI
UNDERI
KHANDERI
ALIBAG
RATANGAD
SONGIR
KHARDA
PEDGAON
KARMALA
SURGAD
GHOSALGAD
KANSA
RAYGAD
LINGANA
SUPA
PARENDA
SONGAD
MANGALGAD
CHAVERGAD
PRATAPGAD
MANDANGAD
PANDAVGAD
TEMBHURANI
MAHIPAT GAD
CHANDAN
VANDAN
SUVARNDURGA
TALA
MAKARANDA GAD
DATEGAD
VARUGAD
DEVGAD
RASALGAD
VASOTA
SATARA
MAHIMANGAD
SHOLAPUR
PALGAD
PARALI
JANGLI JAYGAD
MACHNUR
MANGALVEDHA
BHUSHANGAD
BAHIRAVGAD
BHAVANGAD
PATEGAD
SANGOLA
JAYGAD
VASANTGAD
SADASHIVGAD
PRACHIT GAD
GUNAVANTGAD
MAIMATGAD
VISHALGAD
PAVANGAD
PANHALA
MIRAJ
PURNAGAD
MACHAL
SATAVALI
RAJAPUR
KHAREPATAN
VIJAYADURGA
SIVGAD
NIPANI
DEVGAD
RAMGAD
BHIRAVGAD
BHUDARGAD
BHAGAVANT GAD
BHARATGAD
SONGAD
GANDHARVA GAD
MAHIPALGAD
PADMADURGA
SAVANTAWADI
KALANIDHI GAD
NIRTI
PARGAD
BELGAUM
VENGURLA
REDI
PANJIM
GOA
KARWAR
BHATKAL

In the month of March 1689,[63] the Rāyagaḍ was besieged by the Mughals and the siege continued till the first week of November 1689.[64] On the 3rd November 1689 the fort was handed over to the Mughals[65] and thus the administration of the fort ultimately went in their hands. We learn that Sursingh was appointed as killedār and after his death his son Shivasingh was promoted to this post. He was also appointed as police superintendent of Pāchāḍ,[66] a village at the foot of Rāyagad. He served as killedar till the death of Aurangzeb. After the death of Aurangzeb, the Mughals decided to hand over the fort to the Siddis of Janjirā. Siddi Yākutkhan, the chief of Janjirā, appointed Siddi Johar as killedār of the Rāyagaḍ.[67] During the time of Shahu the pratinidhi captured the fort Rāyagaḍ in 1733. Shahu appointed Bimbāji Pawār as the Hawāldār of Rāyagaḍ.[68] Further he decided to keep the garrison of 5000 on Rāyagad. He also arranged to supply all necessary things to the Rāyagaḍ so as to make it self-sufficient.[69]

From the above discussion it can be said that all the Mratha kings including Shahu provided enough attention towards the administration of the Rāyagad. But after the death of Sambhaji, the importance of this place as capital was lost and the fort was then treated like ~~after~~ other forts, althought it acquired the name as the ‘fort of throne’ (Takhtāchā gaḍ).[70]

Notes

1. SCP (J S), P.24.

2. Shivaji and his Times, P.246.

3. Sabhāsad, P.63.

4. Shivaji and his Times, P.250.

5. Śivachhatrapati-Pp.99-100.

6. Ibid., P.99.

7 In may be noted that although the Daultābād fort was impregnable owing to its natural steep scarp, tunnelled passage and other defenisve bulwarks inside and outside, the plain land was very adjacent to it and it was easy to raise the battery or to construct siege-towers in front of the gate. Further the neighbouring hills could easily render the proper sites to enemy for bombardment. When Shāhajahān seeged that fort, he selected neighbouring hills for mounting guns of great calibre and from there an effective bombardment was made. In the case of the Rāyagaḍ, as there was no plain land and neighbouring hills of the same height, there was no scope for raising the battery. In 1813, the British selected small hillock of 'Potlyā,' near the Rayagad for raising the batteries. This hill was, of course, lesser in height than the Rāyagad. But British were having at this time extremely superior and refined artillery.

8. Śiva chhatrapati - P.100.

8. Douglas James - Book of Bombay - P.405.

9. Belfield Eversley - The sieges, P.42.

10. Ibid, P.43- One more defect of the Gibraltar is described, 'though often delightful, the weather of Gibraltar is sometimes trying. The levanter, an unpleasant easterly wind, brings a stream of muggy air which soon makes everyone irritable' (The sieges Pp.42-43). In this regard, the Rāyagaḍ, too, has a drawback to some extent. Jijābāī, the mother of Shivaji, selected Pāchāḍ at the foot of the Rāyagad for her residence because the weather of Rāyagaḍ was not suitable to her health. In the later

period, we learn that when Sakhārām Bāpū Bokīl was imprisoned at Rāyagaḍ, his health had been reduced due to bad weather.

11. Book of Bombay-P.403.

12. Kolaba Gazetteer - P.343.

13. EHS, Vol. I, 358. P.252.

14. Grose-A voyage to the East Indies, Vol. I, P.38.

15. RJ, P.1.

16. Ibid, P.1.

17. Pālegār or Poligar - A revolted ryot setting himself up as a chieftain, living in woods and fastnesses and employing himself in levying contributions and marauding (Molesworth).

18. RJ, P.14, Joshi V.V. - Rājdhāni Rāyagad- P.14.

19. SCP, P.55.

20. SCS, X-41.

21. Shivaji and his times, P.323.

22. Chapter VI.

23. RJ, P.25.

24. SCS. X, 41.

25. Śiva chhatrapati - P.100.

26. Rajwade, VIII. 22.

27. वापी कूप तडागराजि रुचिरं रम्यं वनं वी_तिके ॥
स्तंभैः कुम्भिगृहैः नरेन्द्रसदनैरभ्रंलिहैर्मीहिते ॥

28. Pawar Vol. P.169.

29. Shivaji and his Times, P.172.

30. Śiva_chhatrapati, P.98.

31. Shivaji and his Times, P.176.

32. Sabhasad, P.68.

33. Ibid, P.68.

34. In 'Maratha Architecture' it has been wrongly described that the 'Nānā Darwājā' is flanked by the Khūbladhā bastion. The said bastion, is actually 0.60 Km. away from the Nānā gate.

35. Kolaba Gazetteer, P.359.

36. Sardesai G.S. - New History of the Marathas, Vol.I Pp.264-65.

37. AP, P.63.

38. We can decipher the following words

भी - - -   दे
ही रो - - - - उ नी
मी मार्ड दी व ज
ज स ल उ डया

The inscription is in Devanāgarī script. It is interesting to read the word 'ही रो '.... whether it refers to Hirojī Indulkar, the Imāratī Havāldār of Rayagad?

39. Kolaba Gazetteer, P.361.

40. स्तम्भै: कुंभिगृहै:

41. According to the Kolaba Gazetteer, the number of apartments is seven. But actually we find only six apartments.

42. Sabhasad- P.69.

43. Shivaji Nibandhāvali, P.218.

44. 91 Q. Bakhar - Q. 57.

45. Ibid, Q. 57.

46. Ibid, Q. 57.

47. Rumāl no.75 (unpublished); RJ P.135.

48. James Douglus observes, 'the great gateway or entrance to his (Shivaji's) palace, court or Darbar, apparently a copy of the one at Beejapur.'- Book of Bombay - P.409.

49. The origin of Gaṇḍbheruṇḍa Shilp is described in Chapter IV.

50. Kolaba Gazetteer, P.362.

51. AP, P.70.

52. Ibid, P.69.

53. EPS., I.436 P.375.

54. SCP (JS), 34-35, 48.

55. Kolaba Gazetteer, P.363.

56. SCS, X, 41.

57. Ibid, 41.

58. SCS, X, 16.

59. Rajwade, XVIII, 57.

60. SCP (JS), P.35.

61. Ibid, P.35.

62. Ibid, P.35.

63. Ibid, P.35.

64. Ibid, P.35.

65. Ibid, P.35.

66. RJ. P.100.

67. Ibid, P.101.

68. Ibid, P.112.

69. Peshwa Daftar, 33 - 157, 164, 175

70. Aitehāsik Sankīrṇa Sāhitya, Vol. III, P.157.

Appendix

Historical evidences on the Rāyagad fort

In June 1673, Niccolls Thomas visited the fort in order to get some facilities for English trade from Shivaji.

In September 1673, Nārāyaṇ Shenavī, the representative of the British, visited the fort for making a treaty. As negotiations remained incomplete, he again visited the fort in March 1674. At this time, the British decided to send Henry oxinden to the Rāyagaḍ as an ambassador.

In the month of May 1674, Henry Oxinden reached the fort. A separate guest house was provided for him. He remained there till the coronation ceremony of Shivaji was over. In June 1674, the treaty was concluded and Henry Oxinden left the Rāyagaḍ.

On the 5th June 1674, the coronation ceremony of Shivaji was performed. Gāgā Bhaṭṭ, the author of Kāyasthadharmapradīp,' acted as a chief priest at the time of the coronation. Sabhāsad gives a graphic account of the coronation ceremony, from which one can imagine, how elaborately it was celebrated, as well as how busy was the fort during this period.

On the 18th June 1674, Jijābāi, the mother of Shivaji, passed away at Pāchāḍ, a village below the fort. It is said that she left her personal property worth 25 lakhs of hons for her son.

In September 1674, the second coronation ceremony of Shivaji was observed according to the 'Tāntric' rites.

In February 1675, the thread ceremony of prince Sambhaji was observed on the Rāyagaḍ.

In March 1675, Shivaji started to capture the fort Phonḍā from his capital and returned with success in the month of May.

In September 1675, Samuel Austen, the British ambassador, visited the fort and offered 'Nazaraṇā' to Shivaji. He demanded satisfaction for the damage done to the Company's factory at Dharaṇgaon (Khandesh). Shivaji refused to pay but promised protection to the English factories.

In 1677, Shivaji launched the Karnatak expedition from the Rāyagaḍ. Before leaving the capital Shivaji appointed Hirojī Farjand as his representative to look after the administration of the Rāyagaḍ. His target of building the third line of defence was accomplished.

On the 7th March 1680, the thread ceremony of

Rajaram, the second son of Shivaji, was observed, and after eight days Rajaram married to a daughter of the late Pratāprāo Gujar, the commander of Shivaji.

On the 23rd March 1680, Shivaji was seized with fever and blood dysentery. The illness continued for twelve days and on the 3rd April 1680, he breathed his last on this fort only.

On the 21st April 1680, the coronotion of Rajaram was performed on the Rāyagaḍ.

On the 18th June 1680, Sambhaji arrived at the Rāyagaḍ from Panhāḷā. He imprisoned Rajaram and declared himself as king of the Marathas.

On the 20th July 1680, the coronation ceremony of Sambhaji was observed at the Rāyagad.

In the month of August 1681, the conspirators against Sambhaji tried to poison him.

In October 1681, Sambhaji put to death Aṇṇājī Paṇḍit, Hiroji Farjand, Bālājī Prabhu and five more, bound and put under elephant's feet.

In November 1681, Prince Akbar, the son of Aurangzeb, arrived at the Rāyagaḍ.

In December 1681, Sambhaji undertook the expedition against the Siddīs of Janjirā from Rāyagaḍ.

In January 1686, Shahabuddin, the Mughal chieftain, burnt one village Nizāmpūr near the Rāyagaḍ.

In October 1686, Sambhaji undertook the expedition of Bhadoch from the Rāyagaḍ.

In October 1688, Shirke defeated Kavi Kalasha and therefore Sambhaji started from the Rāyagad to help Kalash. Thereafter Sambhaji never returned to the Rāyagaḍ.

On the 9th February 1689, Changojī Kātkar, the killedār of the Rāyagad, and Yesājī Kank released Rajaram.

On the 12th February 1689, Rajaram took the crown.

In March 1689, Zulfikarkhan, the Mughal chieftain, besieged the Rāyagaḍ.

The siege of Rāyagaḍ continued till the first week of November 1689. On the 3rd November, 1689, the Marathas handed over the fort to the Mughals. The queen Yesūbāī, the wife of Sambhaji, and the Prince Shahu were made over to the Mughals as captives.

From Jinjī Rajaram encouraged his chieftains to recapture the Rāyagad, but it seems that the fort was not recaptured by the Marathas upto 1733, when the Pratinidhi secured it on behalf of Shahu.

Chapter IX

General Observations

After a brief resume of the part played by the forts in the Royal period of the Maratha History and also noting in particular their strategic importance, it would be worthwhile to know why these forts paled into insignificance during the subsequent period.

As already pointed out, the Bahāmanī kings introduced several new elements like barbicans, machicolations, etc. in the fort architecture of the Deccan. During the period of the Bahāmanis, the significance of fortified cities was raised. Consequently the Bahāmanī kings neglected the hill forts. Under the Nizām Shāhī rule of Ahmadnagar, the several hill forts were merely treated as guard posts. Nevertheless, the Nizāmshāhī rulers strengthened some hill forts like the Purandar, the Sinhgad, etc. Although these forts were of strategic importance, the Bahāmanī rulers kept them in the hands of the Maratha Pāḷegārs.

Shahaji, in the first place, recognised the importance of hill forts. He tried to defend the Nizāmshāhī kingdom with the help of hill forts like Māhulī, Toraṇā, Sinhgad, etc.

Shivaji had noticed in the early period of his life, how the hill forts were neglected by the rulers. He must have visualised the possibility of founding the Maratha state through these forts only. He, therefore, decided to form chains of forts. In his attempt of founding swaraj ~~Shivaji~~, he could overcome the strong enemies like Bijapur Kings and the Mughals because of the chains of forts created by him. Further Shivaji introduced new strategy. He started keeping two types of force on forts. One, well equipped garrison at actual fort, and second roving bands. The besiegers at the fort, therefore, were compelled to face these two forces at one and the same time.

So far as the sieges were concerned, these hill forts played very magnificent part in the history. We have seen that the enemies of Shivaji were well equipped with artillery. They used to capture forts by elevating a siege tower called Dhamdhamā, excavating a tunnel for lying mines. On the other hand, the popular method of capturing the fort adopted by the Marathas was 'Scaling ladders'. For reducing the hill forts, it is observed, the method of sap and mine and also of elevating the siege towers was tedious, lengthy and less effective. Earlier in this thesis (appendix to chapter VI), it has been pointed out that very few forts were reduced by the Mughals with these metho Treacheny and bribery were the last and best measures to reduce a fort. On the other hand, the to Marahtas used to capture the fort, with 'Scaling ladder' within ~~mal~~ a short time.

The method of scaling ladders was not favourable to the Mughals and they generally depended on the local people i.e. 'Mawale' in this regard.

In the chapter on sieges, three campaigns conducted by the Mughal~~s~~ chiefs reveal the fact that only Jai Singh could overcome the Marathas. The reason is obvious. He understood well the strategy of Shivaji and instead of taking fort by fort, he concentrated his activities at Purandar after isolating it from egress and ingress. Here he used perfect blockade system. Before Ja~~y~~iaSingh, Shaiestakhan undertook the expedition of the Deccan in 1660. During his campaign Shaiestakhan preferred burning and destroying the territory belonging to the Marathas rather than actually capturing the forts. Further he never recognised the importance of the chains of forts and therefore his expedition proved futile. After Jai Singh's expedition, and after the death of Shivaji, Aurangzeb himself stepped into the Deccan in order to crush the Maratha power totally. We have seen the three phases of his campaign. Like Jai Singh, Aurangzeb recognised the importance of hill forts in the Mara~~ht~~tha territory. He launched his campaign and started ~~to~~ capturing forts. But still he could not overcome the Maratha power as he was compelled to face multiple military tactics operated by the Maratha leaders in Maharashtra and by Rajaram in the Karnatak region. It may be noted that all these Maratha leaders could conduct their operations by using famous guerilla warfare. They secured the best advantage of chains of forts formed by Shivaji. With the help of the Second chain, Rajaram could escape from Viśālgaḍ and retire to the Karantak region. Further Rajaram extracted the maximum benefit of the second chain also. When communications by land were blocked by the Mughals, Rajaram successfully kept the contact by means of marine forts with the Maratha chiefs in Maharashtra. So here again we find that not actual forts but their chains were responsible for the defence and expansion of the Maratha territory. Thus Aurangzeb's great campaign also proved futile. Further we find that the officers appointed by Aurangzeb on the hill forts could not defend them for a long time. Forts like the Rājgaḍ were recaptured by the Marathas only by threatening the killedars who deserted forts without defending them.

John Fryer observes -

'Tis undeniable he (Shivaji) hath taken and maintains against the Moghals sixty odd strong Hills, But the cause is, the Moghals are unacquainted with, and their Bodies unfit for such barren and uneasy places, so that they rather chose to desert than defend them.'[1]

Further forts were regarded as keys of the Maratha kingdom. Aurangzeb who was desirous of capturing the Maratha kingdom could not do so even after spending the most precious years of his life because of these strongholds always defending the king and his territory. Shivaji took utmost care of forts-their defences, fortications, administration etc., as loss of a fort was tantamount to the loss of kingdom.

As forts were so important centres of political activities, naturally the choice of capital fell on them only. This is how the Rājgaḍ and the Rāyagaḍ came to prominence as the fort capitals of Shivaji. Why Shivaji selected the hill fort of Rājgaḍ as his first capital and why he shifted his capital from the Rājgaḍ to the Rāyagaḍ after his great escape from Agra has already been discussed at full length in Chapter VIII. During the age of Rajaram, the fort of Jinjī from the Karnatak provinces was treated as capital fort for sometime. Rajaram was guiding the destiny of the Maratha state from this remote corner of the Maratha power. At this moment, both the capitals of Shivaji i.e. the Rājgad and the Rāyagaḍ were in the hands of the Mughals. So the Maratha kings selected their places of throne according to circumstances. But while doing so, they had given utmost importance to the impregnability of hill fort and its unique position in the adjoining territory. Jinjī as we find is the most important fort constructed at a very strategic site in the Karanatak.

Shivaji had taken several precautions to keep all the forts well organised. For it, the constant and vigilant supervision on the part of the king was required. We have noted that the successors of Shivaji failed to pay vital attention to the administration of forts. Although the Maratha leaders defended their territory by means of chains of forts, it may be noted, that the importance of forts was rapidly dwin~~g~~ding in the subsequent period. The chief officers of the state sec~~end~~ured several forts. Negligible funds were allotted to their maintaince and the administration. Machinary practically everywhere became inefficient.

In the age of Shahu, we find that the theatres of war were shifted from the Deccan to the North. Like the Bahāmanī kings, the Maratha leaders selected their headquarters in the fertile plain. Shahu himself made Sātārā his capital. In the age of Peshwa's supremacy we find that the chieftains like Shinde, Holkar and Bhosle selected their centres of activities like Gwal~~i~~oar, Indore and Nagap~~o~~ur all of which lie in the fertile plains. The cities like Nasik and Nagpur rose to prominence during this period.

Further it may be noted that during the reign of Chhatrapati Rajaram the practice of granting Jāgīr for military services was revived. During the regimes of the Peshwas - Bajirao I and Nanasaheb-we find that the number of jāgīrs and jāgīrdārs grew prominently. This growth of feudalism encouraged the Jāgīrdārs to have their strong mansions. A number of Martha chiefs were posted at strategically important places. These chiefs erected their own strongholds or 'Gaḍhīs' to protect their territories. Patawardhans of Miraj, for example, erected strong 'gaḍhīs' at Tāsgāon and Sangli.

The best example of a gaḍhī is Shanivārwāḍā at Poona built by Bajirao I. Thus the importance of small fortresses i.e. the gadhis increased in place of hill forts during the period of the Peshwas.

But still the Peshwas paid attention to the administration of hill forts for sometime. The papers from Peshwa Daftar reveal that the forts like the Rāyagaḍ, Singhagaḍ, Purandar, etc. were maintained by the Peshwas. These forts were kept under the Havāldārs with small garrisons. But politically these forts were least significant. The forts like the Rāyad were turned into prisons for political defaulters. For instance, Sakhārām Bapū Bokīl, one of the leading members of the Bārabhāī Council, was kept in prison at the Rāyagad fort. Some unpublished papers point out that Sadāshiv Dhoṇḍo Nātū, a man of Raghoba's Party, Shivaji Kanho Khaḷadkar, a leader of conspi~~a~~racy of Narayanrao Peshwa's murder, were kept as captives at the Rāygaḍ fort in 1764.[2] In the same year Sadāshiv Rāmachandra, Kaṇe, Bhiḍe, Nātū and others, the People of Raghoba's party, were kept in prison at the Rāyagaḍ.[3]

During the age of the Peshwas, the supremacy of the Maratha power was established in Malwa, Gujrath, Bundelkhand, Doab, and even in the Punjab. As already mentioned, the theatres of war shifted to the fertile plains. By this time, the great revolutionary change was made in the mode of warfare. The fire-spiting machines became more powerful and destructive. The Europeans, like the British, acquired considerable territory and became prominent with their refined artillery. So it was but natural that the significance of hill forts was lost.

But it may be noted that even in the latter part of the Maratha history the forts like Malanggaḍ (Thana) helped the Marathas during the first Anglo-Maratha War (1773-83) to face the ~~1773~~ British challenge successfully.

Notes

1. A New Account of East India and Persia : Vol. II p. 59.
2. RJ p. 143.
3. Ibid.

Maratha Forts

A list of forts probably in the possession of Shivaji at the time of his death

Sr.No.	Name of fort	Type	District	Source	Remarks
1	2	3	4	5	6
1.	Áserī	Hill	Thana	Rajwade VIII,14	Fort retained by Shivaji in the treaty of Purandar(1665)
2.	Udhedurg			"	" (Not identified
3.	Ghosāḷā	Hill	Kolaba	"	"
4.	Kuwārīgaḍ	Hill	Poona	"	"
5.	Lingāṇā	Hill	Kolaba	"	"
6.	Mahadgaḍ	"	Kolaba	"	"
7.	Pālgaḍ	"	Ratnagiri	"	"
8.	Rājgad	"	Poona	"	"Rebuilt by Shivaji
9.	Rāyagaḍ	"	Kolaba	"	" "
10.	Sudhāgaḍ (Bhorap)	"	"	"	"Repaired by Shivaji
11.	Taḷegaḍ	"	"	"	"
12.	Toraṇā	"	Poona	"	"Repaired by Shivaji
13.	Lohagaḍ	"	Poona	Rajwade VIII, 22.	Repaired by Shivaji
14.	Mahīdhargad	"		"	"
15.	Mahipatgaḍ	"	Ratnagiri	"	"
16.	Manohargaḍ	"	Kolhapur	"	"
17.	Prasiddhagaḍ (Rāngaṇā)	"	Kolhapur	"	"
18.	Pratāpgaḍ	"	Satara	"	"

1	2	3	4	5	6
19.	Purandar	Hill	Poona	-	Vajragaḍ-sub-fort of Purandar
20.	Vajragaḍ	"	Poona	"	"
21.	Rājmāchī	"	Poona	"	Srīvardhan Manranjan Sub-forts of Rāj machi
22.	Srivardhan	"	"	"	"
23.	Manranjan	"	"	"	"
24.	Sabalgaḍ	-	-	"	"
25.	Sārasagaḍ(Pālī)	Hill	Kolaba		
26.	Sinhgaḍ	Hill	Poona	Rajwade VIII, 22.	Repaired by Shivaji
27.	Sindhudurg	Marine	Ratnagiri	"	Built by Shivaji
28.	Suvarṇadurg	"	"	"	Repaired by Shivaji
29.	Vijaydurg	"	"	"	"
30.	Viśālgaḍ	Hill	Kolhapur	"	"
31.	Achalā	"	Nasik	Parnāl-Parvat-grahaṇ-ākhyānam	
32.	Aḍsargaḍ	"	Poona	"	Adasar = Hadsar
33.	Alanga	Hill	Ahamadnagar	"	
34.	Ahivant	"	Nasik	"	
35.	Chāmuṇḍ	"	Poona	"	Chamuṇḍ = Chāvaṇḍ
36.	Hariśchandragaḍ	"	Ahmadnagar	"	
37.	Javaḷyā	"	Nasik	"	

1	2	3	4	5	6
38.	Jîvadhan	"	Poona	"	
39.	Kurang	"	Ahammadnagar	"	Kurang = Kulang
40.	Markaṇḍ	"	Nasik	"	
41.	Sālher	"	Nasik	"	
42.	Trimbak	"	Nasik	"	
43.	Tringalwāḍī	"	Ahammadnagar	"	
44.	Kaṇerāgaḍ	"	Thana	Subhāsad, P.70	
45.	Chandan	"	Satara	" , P.74	
46.	Karāḍ	Ground	Satara	" "	
47.	Kolhāpūr	"	Kolhapur	" "	
48.	Nandgiri (Kalyangaḍ)	Hill	Satara		
49.	Paralī (Sajjangaḍ)	Hill	Satara	" "	
50.	Panhāḷā	Hill	Kolhapur	" "	
51.	Sātārā (Ajimtārā)	"	Satara	Sabhasad, P.74.	
52.	Shirwaḷ	Ground	Sangali	"	
53.	Vandan	Hill	Satara	"	
54.	Waī	Ground	"	"	
55.	Vardhangaḍ	Hill	Satara	Jedhe Chronology (Shivaji Souvenir, P.13)	
56.	Rohiḍā	Hill	Poona	P.17	
57.	Mahuli	"	Thana	P.17	
58.	Bhaṇḍārgaḍ	"	"	-	

1	2	3	4	5	6
59.	Palasgad	"	"	-	59 & 60 Sub-forts of Māhulī
60.	Kunjargad	"	?	P.18	
61.	Kelanjā	"	Satara	P.20	
62.	Phondā	"	Goa	P.20	
63.	Pattā	"	Ahamadnagar	P.24	
64.	Vāsotā	"	Satara	P.24	
65.	Rāmsej	Hill	Nasik	P.27	
66.	Kothalāgad	"	Thana	P.29	
67.	Padmadurg	Marine	Kolaba	Rajwade, VIII,31	Built by Shivaji
68.	Alībag	"	Kolaba		"
69.	Khānderī	"	Kolaba		"
70.	Karnālā	"		Shivāpūr Yādī (SCP)	
71.	Pāndargad	Hill	Satara	"	
72.	Hindolā	"	Kolaba	"	
73.	Bhupālgad	"	Satara	"	
74.	Sarasagad	Hill	Kolaba	Patra Sār ~~Sangrah~~ Sangrah 1326	
75.	Kohaj	Hill	Thana	" 1670	
76.	Makarandgad	Hill	Satara		Built by Shivaji
77.	Tung	Hill	Poona		77 to 79 - Sub-forts of Lohagad
78.	Tikonā	"			
79.	Isagad	"	"		
80.	Pavangad	"	Kolhapur		Subfort of Panhālā

1	2	3	4	5	6
81.	Sāgargad (Kheddurg)	"	Ratnagiri		Built by Shivaji
82.	Manaranjan	"	Kolaba		"
83.	Machhindragaḍ	"	Satara		"
84.	Santoshgad	"	"		"
85.	Bīrwādī	"	Kolaba		Repaired by Shivaj
86.	Harīsh	Hill	Nasik		86 to 91 - During the campaign of Aurangzeb, the Mughals tried to capture these forts. So, probably they were in the hands of the Marathas.
87.	Mānikgaḍ	Hill	Kolaba		
88.	Vasantgaḍ	Hill	Satara		
89.	Bhūshaṇgaḍ	Hill	Satara		
90.	Guṇavantgaḍ	Hill	Satara		
91.	Dātegaḍ	"	Satara		92 to 94 - These forts were ceded to the Mughals according to Purandar treaty. Marathas recapture them (JS).
92.	Khaṇḍkalā	Hill	Poona		
93.	Sonagad	"	Kolaba		
94.	Māngaḍ	"	"		
95.	Jayagaḍ	Marine	Ratnagiri		Repaired by Shivaj
96.	Chāndavaḍ	Hill	Nasik	Shivaji Souvenir, P.173.	Shivaji captured it in 1665
97.	Govaḷkoṭ	Ground	Ratnagiri	" P.72	
98.	Avachitgaḍ	Hill	Kolaba		
99.	Anjanvel	Marine	Ratnagiri	P.66	Repaired by Shivaji
100.	Padmagaḍ	"	"		Sub-forts of Sindhudurg.
101.	Sarjekoṭ	"	"		

Say 120 forts were in the possession of Shivaji in the Swarāj territory.

It is very difficult to identify the forts in Karnatak area. We get frequent references to some forts like Ankolā, Kadavādi, Shiveshvar, Valgudānūr, Jagadevgad, Vellore, Jinjī, Kopal etc. Sabhāsad provides the list of 79 forts in the Karantak territory. The Madras factors (August 1678), tell us that Shivaji acquired 72 strong hills and 14 forts (in plain). So it may be presumed that at least 80 forts were possessed by Shivaji.

= 120 forts in Swarāj

= 80 forts in Karanatak

Total 200 forts

(It is difficult to make an accurate statement about the forts which were in the possession of Shivaji at the time of his death. Chroniclers like Sabhāsad, Chitnīs have given long lists of forts held by Shivaji in the Swarājya and Karantak areas, in their accounts of Shivaji. However, it is difficult to identify all of them with the help of source material that is available at present.

An attempt has been made here to make a list of forts held by Shivaji which have been referred to in the original sources, and which could be mostly identified)

Glossary

Ambārkhānā - Grain - store.

Ardhadaḷa - Merlon

Argaḷā - A timber bar to be used to support the closed doors.

Bāl-i-Killā-The citadel or the upper fort.

Bārgīr-A solider who rode a horse furnished by his employer.

Beldār-A stone-digger, a quarry-worker.

Burj - Bastion.

Charakyā- An iron tube filled with powder and fastened to a staff.

Chilkhat- Armour.

Dhamadhqmā- A siege tower.

Duravyā - The long-range guns.

Gaḍ - A fort, preferably a hill fort.

Gaḍkarīs - The local people supposed to carry out the various duties on the fort.

Gaḍc̣āvaṇī- ~~Literary~~ Gaḍc̣avaṇī means temporary erections for troops on a hill fort. The services of the labour from the surrounding areas have been also known as Gaḍc̣avaṇī.

Fālikā - The embrasures.

Gajnāḷa- Guns carried on elephants

Havāldār - An officer of the fort holding the keys.

Hon - Hon is a corrupt of of Honnu, a kannad word.
A gold coin popular in south India.

Imāratī Havāldār.- The officer for the execution of building work on fort.

Jangyā- The loopholes provided in the battlements.

Janjirā- A marine fort.

Karkhānis- An officer to look after store of grain and war equipment.

Kārsāī - An impost in kind levied for the services of a fort from villagers dependent.

Kharak - A kind of siege engine.

Khākrej - Filling up the ditch around the fort.

Koṭ - A ground fort. - City fortification.

Māchī - Upatyakā (Sanskrit) - Redoubt, terrace or a ~~s~~ trunk of the fort.

Māḷa - A rope ladder.

Magharibis- A powerful siege engine.

Manjainq - A siege engine.

Meṭa - Watch post

Mongonel- A siege engine.

Mudrādhārī- An officer having his own seal.

Nāikwādī - The officer commanding or the leader of infantry units of nine soliders.

Nāḷa - An underground tunnel.

Nardubān- Scaling the ladder.

Padkoṭ- A parapet wall of the fortification.

Pīḷnāḷa- Guns carried on elephants

Pratigulma- A siege tower.

Rāmchāngī- A small cannon.

Sābāt - A pent - house or the excavated trench for sap and mine purposes.

Sābnis - An officer-in-charge of the accounts in general.

Śibandī- The garrison.

Sutarnāḷa- Guns carried on camels.

Tākaṇyā - Hand grenades.

Taṭ - Fortification.

Taṭsarnobat-An officer looking after rampart walls.

Tās - A metallic vessel for giving sound.

Zambruk- A small gun.

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